

APPENDIX E

Biological Resources

March 18, 2014

6782-02

Mr. Nick Lee
Baldwin & Sons
610 West Ash Street, Suite 1500
San Diego, California

Subject: Biological Resources Analysis for the Otay Ranch Village Two Comprehensive Sectional Planning Area Plan Amendment, City of Chula Vista, California

Dear Mr. Lee,

This report presents a description of the existing biological conditions relevant to the Otay Ranch Village Two Comprehensive Sectional Planning Area (SPA) Plan Amendment project (proposed project). The review of biological resources focused on the area within the proposed area R-8C within which the biological resources have changed since the preparation of the Environmental Impact Report (EIR) that addresses Villages Two, Three, and a Portion of Village Four (City of Chula Vista 2006). The biological resources for Village Two were thoroughly described in the biological technical report prepared in support of the EIR (Dudek 2006). The project addressed by the original EIR (City of Chula Vista 2006) was compared to the current proposed project. Only those biological resources that were not fully address in 2006 are included in the following discussion and analysis. This letter provides the results of a jurisdictional wetland delineation, habitat assessment for special-status species and provides avoidance and/or mitigation measures to reduce impact to a level below significance where appropriate.

PROJECT LOCATION AND DESCRIPTION

The current SPA Plan for Village Two allows for a mix of single family and multi-family residential, mixed use development, commercial and industrial uses, and schools, parks, and community purpose facilities (CPF). The SPA Plan was originally adopted in 2006 and was previously analyzed in the *Otay Ranch Villages Two, Three, and a Portion of Village Four Sectional Planning Area Plan Final Second Tier Environmental Impact Report* (City of Chula Vista 2006) and associated addendum. Baldwin & Sons has planned the proposed project to create a complete village; one that is responsive to homebuyer preferences and is viable in light of current economic conditions, village ownership, infrastructure status, and government policy objectives/requirements. The plan features increased residential densities, diversity of residential product types, and resident amenities such as park and CPF uses and an additional

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neighborhood elementary school. The proposed project would add 1,562 dwelling units in a variety of residential types for a total of 4,545 units in Village Two (3,435 dwelling units under Baldwin & Sons ownership). The proposed project would increase the allocated single family dwelling units by up to 311 and introduce 1,251 multi-family dwelling units. While the unit count may change, the overall project footprint is either the same or has been fully evaluated for biological resources in the Biological Technical Report (Dudek 2006) except for the area within the R-8C land use area. This area was not included in the impacts evaluation in the previous analysis and thus is the subject of this letter. The area within which R-8C is proposed is approximately 11 acres and is described as the study area.

The proposed project is located within the City of Chula Vista in southwestern San Diego County, approximately 3.5 miles east of downtown Chula Vista and 13 miles southeast of Downtown San Diego (Figure 1). The proposed project area occupies approximately 267 acres within Village Two in the Otay Valley Parcel of the Otay Ranch General Development Plan (GDP) (Figure 2). Village Two consists of a total of 810 acres. Village Two is generally bounded by Olympic Parkway to the north, La Media Road to the east, Village 3 and 4 to the south, and the Otay Landfill to the west. The study area with which this analysis is concerned is an approximate 11-acre area that is located southeast of Olympic Parkway, west of La Media Road, and north of Santa Diana Road (Figure 3). The study area is bounded by existing development or areas currently under construction. The current biological analysis focused on the area between the north and south facing manufactured slopes, southwest of Otay Ranch High School. The approximate center of the project study area is at longitude 117.99° West and latitude 33.62° North within Section 9, Township 18 South, Range 1 West on the U.S. Geological Survey (USGS) 7.5-minute Otay Mesa Quadrangle map.

The two soil types within the study area, according to the San Diego County Soil Survey (Bowman 1973), include Salinas clay loam, 2–9% slopes; and Diablo clay 9–15%.

METHODS

Field Reconnaissance

A biological survey and wetland delineation was conducted for the study area by Dudek biologists Thomas Liddicoat and Emily Wier on November 4, 2013. The survey included mapping of existing vegetation communities and a detailed evaluation of potential jurisdictional wetlands or waters. A wildlife habitat assessment was conducted by Anita Hayworth Ph.D. on January 17, 2014 to review the potential for special status species within the study area.

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Additional vegetation mapping of the study area was conducted on January 21 by Vipul Joshi. Table 1 summarizes the survey information and Appendix A provides a list of observed species.

Table 1
Survey Conditions

| Date | Time | Personnel | Survey Conditions |
|----------|-----------|--------------------------------|--|
| 11/04/13 | 0920-1600 | Thomas Liddicoat Emily Wier | 95-100% cloud cover, 1-5 miles per hour wind, 64° Fahrenheit |
| 1/17/14 | 1030-1200 | Anita Hayworth | 0% cloud cover, 1-5 miles per hour wind, 78° Fahrenheit |
| 1/21/14 | 0900-1200 | Vipul Joshi | 50% cloud cover, 1-5 miles per hour wind, 68° Fahrenheit |

Resource Mapping

The survey was conducted on-foot and all portions of the study area were thoroughly investigated to visually cover 100% of the project study area. A 100-scale (i.e., 100 feet = 1 inch) field map (Bing Maps 2013) with layers of aerial imagery was utilized to map vegetation communities, land cover types, and record any jurisdictional areas directly in the field.

The vegetation community and land cover mapping follows the *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986). In some cases, Oberbauer (2008) is also utilized as a reference, especially with regards to land cover types. Areas that supported at least 20% native plant species, but fewer than 50% native cover were mapped as a disturbed native vegetation community (i.e., disturbed Mulefat Scrub). Vegetation community and land cover mapping was conducted throughout the study area. Following completion of the field mapping, Dudek Geographic Information System (GIS) Specialist Fernando Duenas digitized the mapped findings using ArcGIS and calculated coverage acreages using ArcCAD.

The wildlife assessment was conducted by walking through the study area, noting the quality and composition of the habitats present and recording species observed.

All plant and wildlife species encountered during the survey were identified and recorded directly into a field notebook. Those species that could not be identified immediately were brought into the laboratory for further investigation. Latin and common names for plant species follow the Jepson Interchange List of Currently Accepted Names of Native and Naturalized Plants of California (Jepson Flora Project 2013).

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Jurisdictional Resources and Regulatory Setting

The biological investigation included identifying resources within the proposed project boundary that may be subject to regulations under the following: Section 404 of the Clean Water Act (CWA) as administered by the U.S. Army Corps of Engineers (ACOE), Section 401 of the CWA and the Porter Cologne Act as administered by Regional Water Quality Control Board (RWQCB), Sections 1600–1603 of the Fish and Game Code as administered by the California Department of Fish and Wildlife (CDFW). The following federal and state agencies regulate activities within waters, wetlands, and riparian areas throughout California: ACOE, CDFW, and RWQCB. The ACOE Regulatory Program regulates activities in jurisdictional resources (i.e., wetlands and waters) under Section 404 of the CWA. The CDFW regulates activities to wetlands and non-wetland waters under Sections 1600–1616 of the Fish and Game Code. The RWQCB regulates activities to wetlands and non-wetland waters exhibiting surface water under Section 401 of the CWA and the Porter-Cologne Water Quality Control Act (Porter-Cologne Act). The wetlands also are under the jurisdiction of the City of Chula Vista under the Wetlands Protection Program. For Covered Projects, inclusive of Village 2, the project is required to demonstrate that impacts to wetlands are avoided to the greatest extent practicable and that wetland impacts are addressed with mitigation consistent with the Wetlands Mitigation Ratios (City 2003).

The site described in this report is subject to resource agency jurisdiction over potential wetlands, waters, and wetland vegetation across the site. Below are further descriptions regarding resource agency jurisdictions.

U.S. Army Corps of Engineers

The federal Water Pollution Control Act Amendments of 1972 (Clean Water Act; 33 U.S.C. 1251 et seq.), as amended by the Water Quality Act of 1987 (PL 1000-4), is the major federal legislation governing water quality. The purpose of the Clean Water Act is to “restore and maintain the chemical, physical, and biological integrity of the nation’s waters.” Discharges into waters of the United States are regulated under Section 404. Waters of the United States include (1) all navigable waters (including all waters subject to the ebb and flow of tides); (2) all interstate waters and wetlands; (3) all other waters, such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sand flats, wetlands, sloughs, or natural ponds; (4) all impoundments of waters mentioned above; (5) all tributaries to waters mentioned above; (6) the territorial seas; and (7) all wetlands adjacent to waters mentioned above. In California, the State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCBs) are responsible for implementing the Clean Water Act.

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The ACOE regulates “discharge of dredged or fill material” into “waters of the U.S.,” which, pursuant to provisions of Section 404 of the CWA, include tidal waters, interstate waters, and all other waters that are part of a tributary system to interstate waters or to navigable “waters of the U.S.,” the use, degradation, or destruction of which could affect interstate or foreign commerce. Waters of the U.S. also include tributaries to waters subject to the ebb and flow of the tide (33 CFR. 328.3[a]). The ACOE jurisdiction within rivers and streams extends to the “ordinary high water mark” (OHWM). In accordance with the procedures established in the ACOE Wetland Delineation Manual, the ACOE defines jurisdictional wetlands as areas that meet three parameters: 1) supporting a predominance of hydrophytic vegetation, 2) presence of hydric (anerobic) soils, and 3) evidence of wetland hydrology (Environmental Laboratory 1987). However, the United States Supreme Court ruling in the *Solid Waste Agency of Northern Cook County vs. United States Army Corps of Engineers*, No. 99-1178 (January 9, 2001) (“the SWANCC case”), held that the CWA does not give the federal government regulatory authority over non-navigable, isolated, intrastate waters. Because of this decision, some previously regulated depressional areas such as mudflats, sandflats, wetlands, prairie potholes, wet meadows, playa lakes, natural ponds, and vernal pools, which lack a hydrologic connection to other intra- or inter-state “waters of the U.S.,” are no longer regulated by the ACOE. However, some of these areas (e.g., isolated streams, lakes or ponds) may still be regulated by the CDFW under Section 1600 of the Fish and Game Code or the RWQCB under the Porter-Cologne Act.

California Department of Fish and Wildlife

In accordance with Section 1600 et seq. of the California Fish and Game Code (Streambed Alteration), the CDFW regulates activities which “will substantially divert, obstruct, or substantially change the natural flow or bed, channel or bank, of any river, stream, or lake designated by the CDFW in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit.” The CDFW takes jurisdiction to the top of bank of a stream, or the limit of the adjacent riparian vegetation, referred to in this report as “associated riparian vegetation.” In 14 CCR 1.72, the CDFW defines a “stream” (including creeks and rivers) as “a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation.”

In 14 CCR 1.56, the CDFW’s definition of “lake” includes “natural lakes or man-made reservoirs.” Diversion, obstruction, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake that supports fish or wildlife requires authorization from CDFW by means of entering into an agreement pursuant to Section 1602 of the Fish and Game Code.

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Section 1600 et seq. does not extend to isolated wetlands and waters, such as small ponds not located on a drainage course, wet meadows, vernal pools, or tenajas, nor does it extend over marine waters influenced by the ebb and flow of the tide that lack a bed and bank form typical of stream channels.

Regional Water Quality Control Board

The RWQCB regulates discharging waste, or proposing to discharge waste, within any region that could affect the “waters of the state” (Water Code Section 13260 (a)), pursuant to provisions of the Porter-Cologne Act. “Waters of the State” are defined as “any surface water or groundwater, including saline waters, within the boundaries of the state” (Water Code Section 13050 [e]). Although the Porter-Cologne Act definition of “Waters of the State” may not apply on federally owned land, the RWQCB may still assert jurisdiction over qualifying aquatic resources on land owned by the US where the CWA Section 401 applies. Before the ACOE will issue a CWA Section 404 permit, applicants must receive a CWA Section 401 Water Quality Certification from the RWQCB. If a CWA Section 404 permit is not required for the project, the RWQCB may still require a permit (i.e., Waste Discharge Requirement) under the Porter-Cologne Act.

A formal delineation of jurisdictional “waters of the United States,” including wetlands, under the regulation of the ACOE, California Department of Fish and Game (CDFG), and RWQCB was conducted for the project site. The delineation was performed in accordance with the methods prescribed in the 1987 *Wetland Delineation Manual, Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Environmental Laboratory 1987) and the 2008 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (ACOE 2008).

Pursuant to the federal CWA, ACOE- and RWQCB-jurisdictional areas include those supporting all three wetlands criteria described in the ACOE manual: hydric soils, hydrology, and hydrophytic vegetation. Areas regulated by the RWQCB are generally coincident with the ACOE, but can also include isolated features that have evidence of surface water inundation pursuant to the state Porter Cologne Act. These areas generally support at least one of the three ACOE wetlands indicators but are considered isolated through the lack of surface water hydrology/connectivity downstream. The extent of CDFG regulated areas typically include areas supporting a predominance of hydrophytic vegetation (i.e., 50% cover or greater) where associated with a stream channel. The City’s Subarea Plan outlines provisions for impacts to wetlands/riparian vegetation communities (City 2003, Table 5-6).

To assist in the determination of jurisdictional areas on site, data was collected at eight sampling points. Hydrology, vegetation, and soils were assessed and sampling data was collected on

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approved ACOE forms (Appendix B). The project site was evaluated for evidence of an ordinary high water mark (OHWM), surface water, saturation, and wetland vegetation. The extent of any identified jurisdictional areas was determined by mapping the areas with similar vegetation and topography to the sampled locations. Jurisdictional features were determined and recorded directly in the field using a GPS unit. Subsequent to the field work, this GPS data was transferred to topographic base, and a GIS coverage was created.

Regulatory Setting

In addition to the discussion of wetlands and jurisdictional resources described above, the following provides a discussion of the regulatory setting on a federal, state, and local level.

Federal Level

Federal Endangered Species Act

The federal Endangered Species Act of 1973 (ESA), as amended (16 U.S.C. 1531 et seq.), provides for listing of endangered and threatened species of plants and animals and designation of critical habitat for listed animal species. The ESA also prohibits all persons subject to U.S. jurisdiction from “taking” endangered species, which includes any harm or harassment. Section 7 of the ESA requires that federal agencies, prior to project approval, consult the U.S. Fish and Wildlife Service (USFWS) and/or the National Marine Fisheries Service (NMFS) to ensure adequate protection of listed species that may be affected by the project.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703 et seq.) is a federal statute that implements treaties with several countries on the conservation and protection of migratory birds. The list of bird species covered by the MBTA is extensive and is detailed in 50 CFR 10.13. The regulatory definition of “migratory bird” is broad and includes any mutation or hybrid of a listed species, including any part, egg, or nest of such a bird (50 CFR 10.12). Migratory birds are not necessarily federally listed endangered or threatened birds under the ESA. The MBTA, which is enforced by USFWS, makes it unlawful “by any means or in any manner, to pursue, hunt, take, capture, [or] kill” any migratory bird or attempt such actions, except as permitted by regulation. The applicable regulations prohibit the take, possession, import, export, transport, sale, purchase, barter, or offering of these activities, except under a valid permit or as permitted in the implementing regulations (50 CFR 21.11).

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State Level

California Endangered Species Act

Similar to the federal ESA, the California ESA of 1970 provides protection to species considered threatened or endangered by the State of California (California Fish and Game Code, Section 2050 et seq.). The California ESA recognizes the importance of threatened and endangered fish, wildlife, and plant species and their habitats, and prohibits the taking of any endangered, threatened, or rare plant and/or animal species unless specifically permitted for education or management purposes.

Porter-Cologne Water Quality Act

The Porter-Cologne Water Quality Act of 1969, updated in 2012 (California Water Code, Section 13000 et seq.), provides for statewide coordination of water quality regulations. The act established the California SWRCB as the statewide authority, and nine separate RWQCBs were developed to oversee water quality on a day-to-day basis.

Local Level

City of Chula Vista Multiple Species Conservation Program Subarea Plan

The Multiple Species Conservation Program (MSCP) Subarea Plan is implemented through individual Subarea Plans adopted by each jurisdiction receiving Take authorization for covered species. The Chula Vista MSCP Subarea Plan was approved by the City in May 2003 and received Take authorization in January 2005. The Subarea Plan provides for conservation of upland habitats and species through preserve design, regulation of impacts and uses, and management of the Preserve. The proposed project is considered a “Covered Project” under the Chula Vista MSCP Subarea Plan. The 100% Conservation Areas are either already in public ownership or will be dedicated to the Preserve as part of the development approval process for Covered Projects. Any portions of Covered Projects that are located within 100% Conservation Areas must be consistent with conditions allowing specific land uses within the Preserve as outlined in Section 6.0 of the Subarea Plan and are subject to the narrow endemic Species Policy (avoidance and minimization) and the Wetlands Protection Program.

Otay Ranch General Development Plan

The Otay Ranch General Development Plan (GDP) was approved jointly by the City of Chula Vista and County of San Diego in 1993 for the future development of Otay Ranch. The Otay

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Ranch GDP was amended in December 2005 as part of the City's General Plan Update and most recently was amended in February 2013. The Otay Ranch GDP establishes land use plans, design guidelines, objectives, policies, and implementation measures that apply to all portions of Otay Ranch while supporting a balance of housing, shops, workplaces, schools, parks, civic facilities, and open spaces. The majority of development is intended to be clustered in villages, with conveniently located "core" features and well-defined edges such as the Chula Vista greenbelt, open spaces, and wildlife corridors. The goals of the Otay Ranch GDP are to: (1) create a well-integrated, balanced land use; (2) reduce reliance on the automobile and promotion of alternative modes of transportation; and (3) diversify the economic base within Otay Ranch.

Otay Ranch Resource Management Plan

The Otay Ranch Resource Management Plan (RMP) was adopted in 1993 with the approval of the Otay Ranch General Development Plan to establish a permanent preserve within Otay Ranch. The RMP is comprised of two separate documents, the Phase 1 RMP and Phase 2 RMP (adopted in 1996 and revised in 2002). The Phase 1 RMP identifies Preserve areas within Otay Ranch, and contains policies regarding species and habitat conservation and long-term management of the Preserve. The Phase 2 RMP includes ranch-wide studies that were conducted pursuant to the Phase 1 RMP and provides additional detail on conveyance, management and funding (City of Chula Vista and County of San Diego 1993 and 2002). The purpose of the Otay Ranch Preserve is to protect and enhance biological, paleontological, cultural, and scenic resources. Plan objectives include biological diversity and promotion of the survival and recovery of native species and habitats. The RMP identifies an open space system of 11,375 acres to be dedicated within the Otay Ranch, targeting lands that include important resources such as vernal pools, coastal sage scrub habitat, coastal California gnatcatcher populations, and potential wetlands restoration areas. The Otay Ranch Preserve would also connect large areas of open space through a series of wildlife corridors, and cover portions of Salt Creek Canyon to Otay Valley. The preserve boundaries from the RMP have been incorporated into the adopted Otay Ranch GDP. The preserve/development boundary of the Otay Ranch GDP is consistent with the objectives, policies, and criteria established in the RMP (City of Chula Vista and County of San Diego 1993 and 2002).

The Phase 2 Resource Management Plan (Phase 2 RMP or RMP 2), adopted in 1996 and revised in 2002, identified implementation measures that included procedures for dedicating parcels of land to the resource preserve and for determining the proportionate share for each village.

Land identified by the RMP as part of the 11,375-acre Otay Ranch Preserve is required to be conveyed to the preserve prior to the approval of final maps. The conveyance ratio (ratio of land

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to be dedicated per acre of development) is 1.188 acres dedicated for each developable acre that is final mapped. This ratio was established by the RMP 2. The RMP 2 identified 9,574 “developable acres” in Otay Ranch, which are defined as the total amount of developable acreage minus “common uses” (local parks, schools arterials, SR-125 and lands designated as a public use area) and “Limited Development Areas.” In order for the conveyance of the entire 11,375-acre Otay Ranch Preserve, the RMP 2 calculated that 1.188 acres of preserve land must be dedicated for each developable acre (11,375 acres of preserve divided by 9,574 developable acres). The conveyance obligation is required to be met on a village-by village basis.

RESULTS

Vegetation Communities/Land Cover Types

Seven vegetation communities or land cover types were identified within the project study area during the current mapping including: non-native grassland (NNG), mulefat scrub (MFS), disturbed mulefat scrub (dMFS), coastal and valley freshwater marsh (FWM), southern willow scrub (SWS), open water (OW), and disturbed land (DL). Table 2 provides the acreage of each vegetation community. The previous mapping that was prepared in 2006 (Dudek 2006) was updated and revised to provide the current conditions in the study area. A comparison of the vegetation communities from the previous mapping versus that prepared in 2013 is provided in Table 2.

Table 2
Existing Vegetation Communities within Study Area of Village 2

| Vegetation Community | Current Acreage | Previous Mapping (2006) |
|--|-----------------|-------------------------|
| <i>Uplands</i> | | |
| Non-native grassland | 1.81 | 6.78 |
| <i>Total uplands</i> | <i>1.81</i> | <i>6.78</i> |
| <i>Wetlands and Waters of the U.S.</i> | | |
| Mulefat Scrub | 0.18 | 0.0 |
| Disturbed Mulefat scrub | 0.24 | 0.0 |
| Coastal and Valley Freshwater marsh | 0.14 | 0.0 |
| Southern willow scrub | 0.35 | 0.0 |
| Open water | 0.05 | 0.0 |
| <i>Total wetlands/waters</i> | <i>0.97</i> | <i>0.0</i> |
| <i>Land Covers</i> | | |
| Disturbed land | 7.88 | 0.0 |
| Developed | 0.0 | 2.91 |

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Table 2
Existing Vegetation Communities within Study Area of Village 2

| Vegetation Community | Current Acreage | Previous Mapping (2006) |
|-----------------------------|------------------------|--------------------------------|
| Agriculture | 0.0 | 0.97 |
| <i>Total land covers</i> | <i>7.88</i> | <i>3.88</i> |
| Total | 10.66 | 10.66 |

Jurisdictional Delineation

Results of the delineation indicate there are two types of regulated jurisdictional resources within the study area including wetlands and non-wetlands waters of the United States.

The jurisdictional wetlands identified on site are defined by the ACOE manual (i.e., three parameters: hydrophytic vegetation, hydric soils, and hydrology) and predominantly follow the extent of mapped vegetation communities (either MFS, dMFS, SWS, or FWM). The jurisdictional wetlands are relatively permanent waters of the U.S. regulated under the joint jurisdiction of ACOE, RWQCB, and CDFW except for one area that is under the jurisdiction of CDFW only. During the site investigation water flows (approximately 1-foot wide 4 inches deep) were present in a meandering channel within vegetation.

Although not considered ACOE wetlands (i.e., not meeting all three parameters), the swale area mapped as DH-S and the OW are considered a non-wetland waters of the U.S. under the joint regulation of ACOE, RWQCB, and CDFW. During the site investigation both areas contained ponded water and had an evident bed and bank.

All of the jurisdictional boundaries mapped during the investigation are spatially presented on Figure 3 and the corresponding acreages are provided in Table 3. The results of the eight data stations are presented in Table 4.

Table 3
Jurisdictional Areas Within Study Area of Village 2

| Vegetation Community/Land Cover Type | Resource Agency Jurisdiction (Acres) | | |
|---|---|-------------|--------------------|
| | <i>ACOE/RWQCB/CDFW</i> | <i>CDFW</i> | <i>Grand Total</i> |
| <i>Wetlands</i> | | | |
| Mulefat Scrub | 0.18 | | 0.18 |
| Disturbed Mulefat Scrub | 0.19 | 0.05 | 0.24 |
| Freshwater Marsh | 0.14 | | 0.14 |

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Table 3
Jurisdictional Areas Within Study Area of Village 2

| Vegetation Community/Land Cover Type | Resource Agency Jurisdiction (Acres) | | |
|--------------------------------------|--------------------------------------|------|-------------|
| | ACOE/RWQCB/CDFW | CDFW | Grand Total |
| Southern Willow Scrub | 0.35 | | 0.35 |
| Subtotal | | | 0.91 |
| Non-Wetland Waters of the U.S. | | | |
| Open Water | 0.05 | | 0.05 |
| Disturbed Habitat Swale | 0.01 | | 0.01 |
| Subtotal | | | 0.06 |
| Grand Total | | | 0.97 |

A small area of dMFS (dMFS-C) is characterized by Data Station 3 and is determined to not meet the three criteria for ACOE wetlands however it does support the hydrophytic vegetation parameter to define CDFW riparian wetlands (Table 3).

Table 4
Data Station Summary

| Data Station | Wetland Determination Field Indicators | | | Determination | Jurisdiction |
|--------------|--|--------------|-----------|---------------|-------------------|
| | Vegetation | Hydric Soils | Hydrology | | |
| 1 (DS-1A) | ✓ | ✓ | ✓ | Wetland | ACOE, RWQCB, CDFW |
| 2 (DS-1B) | – | ✓ | – | Non-wetland | None |
| 3 (DS-1C) | ✓ | – | ✓ | CDFW riparian | CDFW |
| 4 (DS-1D) | ✓ | – | – | CDFW riparian | CDFW |
| 5 (DS-2) | – | ✓ | – | Non-wetland | None |
| 6 (DS-3A) | ✓ | ✓ | ✓ | Wetland | ACOE, RWQCB, CDFW |
| 7 (DS-3B) | – | ✓ | – | Non-wetland | None |
| 8 (DS-4) | – | – | – | Non-wetland | None |

Special Status Species Assessment

The potential for special status plant and wildlife species was evaluated based on the survey visits made to the study area and the past occurrence information presented in the 2006 biological technical report (Dudek 2006). The conclusions of the potential to occur for special status species are presented in Appendices C and D.

In general, there are few special status plant species with moderate to high potential to occur within the approximately 10-acre study area (Appendix C). The area was previously mapped as

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predominantly non-native land habitats or covers and over time, with runoff from adjacent development, has recently developed a wetland area. This recent occurrence would not be expected to contain special status plant species since it is a recent and man-cause occurrence. Much of the rest of the area has been graded or is composed of non-native species, similar to the original condition. In the 2006 rare plant surveys, no rare plants were detected in the study area. Regardless, based on the soils and habitat present, and the distribution and habitat requirements of special status plant species, the following have a moderate to high potential to occur within the study area: San Diego marsh-elder (*Iva hayesiana*) and southwestern spiny rush (*Juncus acutus* ssp. *leopoldii*). Both of these species are known to occur within drainages within this region of Chula Vista but also, both species are readily detectable at all times of year and were not observed within the drainage.

There is limited habitat value for wildlife in the study area due to the previous grading of slopes and the overall weedy nature of the vegetation (Appendix D). However, there is a small patch of southern willow scrub in conjunction with patches of mulefat scrub that are associated with the drainage as described above in the wetland delineation. There are a number of mid-sized willow trees within the southern willow scrub that potentially provide nesting opportunities for riparian bird species. With the addition of the adjacent mulefat scrub, there are also foraging opportunities. Thus it was concluded there is a moderate potential for the least Bell's vireo (*Vireo bellii pusillus*) to occur within the study area. The least Bell's vireo is a federal and state-listed endangered species and an MSCP covered species. Other special status wildlife species with a moderate to high potential to occur within the study area include: western spadefoot (*Spea hammondi*), two-striped garter snake (*Thamnophis hammondi*), Cooper's hawk (*Accipiter cooperii*), yellow warbler (*Setophaga petechial brewsteri*), yellow-breasted chat (*Icteria virens*), and western bluebird (*Sialia mexicana*). The western spadefoot, two-striped garter snake, yellow warbler, and yellow-breasted chat are state Species of Special Concern. The Cooper's hawk is a state Watchlist species. The Cooper's hawk and western bluebird are MSCP Covered Species.

In addition to the potential presence of riparian wildlife species, there is some non-native grassland present that may be used by grassland dwelling species. These include the following species: burrowing owl (*Athene cunicularia*), silvery legless lizard (*Anniella pulchra pulchra*), orange-throated whiptail (*Aspidoscelis hyperythra beldingi*), California horned lark (*Eremophila alpestris*), Dulzura pocket mouse (*Chaetodipus californicus femoralis*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*). These species would be considered to have a moderate to high potential to occur within the study area. The burrowing owl, orange-throated whiptail, silvery legless lizard, Dulzura pocket mouse, and San Diego black-tailed jackrabbit are state

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Species of Special Concern. The California horned lark is a state Watchlist species. The orange-throated whiptail and burrowing owl are MSCP Covered Species.

MITIGATION MEASURES

Impacts to wetlands and wetland vegetation communities are significant and require mitigation. Impacts to these jurisdictional areas resulting from the implementation of the proposed project are subject to the regulations and requirements of the wetland resource agencies. Due to the moderate potential for least Bell's vireo within the vegetation in the drainage, impacts to this species, if present, also are significant and require mitigation. Due to the moderate potential for burrowing owl to be present, impacts to this species, if present, are significant and require mitigation. The Village Two SPA Plan is located within a Development Area of a Covered Project within the City's MSCP Subarea Plan. Coverage for this project is predicated on the applicant's timely conveyance of conserved land within the Otay Ranch Preserve pursuant to the Otay Ranch RMP (Phase 2) and thus mitigation is required. The following mitigation measures reduce the impacts to a level below significance.

BIO-1. A total of up to 0.91 acres of wetlands and 0.06 acre of waters of the U.S./State within the Project may be impacted within the Development Area. Prior to issuance of land development permits, including clearing, grubbing, and grading permits for areas that impact jurisdictional waters, the Project Applicant shall provide evidence that all required regulatory permits, such as those required under Section 404 of the federal Clean Water Act, Section 1600 of the California Fish and Game Code, and the Porter Cologne Water Quality Act.

BIO-2. Prior to issuance of land development permits, including clearing, grubbing, and grading permits that impact jurisdictional waters, the developer(s) shall prepare a Wetlands Mitigation and Monitoring Plan to the satisfaction of the City, ACOE, and CDFW. This plan shall include, at a minimum, an implementation plan, maintenance and monitoring program, estimated completion time, and any relevant contingency measures. Areas under the jurisdictional authority of ACOE and CDFW shall be delineated on all grading plans. Mitigation areas shall occur within the Otay River watershed or other suitable location in accordance with the Wetlands Mitigation and Monitoring Plan to the satisfaction of the City, ACOE, and CDFW. The Project Applicant shall also be required to implement the Wetlands Mitigation and Monitoring Plan subject to the oversight of the City, ACOE, and CDFW.

BIO-3. To avoid any direct impacts to raptors and/or any migratory birds protected under the MBTA, removal of habitat that supports active nests on the proposed area of disturbance should occur outside of the breeding season for these species (January 15 to August 31). If removal of

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habitat on the proposed area of disturbance must occur during the breeding season, the Project Applicant shall retain a City-approved biologist to conduct a pre-construction survey to determine the presence or absence of nesting birds on the proposed area of disturbance. The pre-construction survey must be conducted within 10 calendar days prior to the start of construction, and the results must be submitted to the City for review and approval prior to initiating any construction activities. If nesting birds are detected, a letter report or mitigation plan, as deemed appropriate by the City, shall be prepared and include proposed measures to be implemented to ensure that disturbance of breeding activities are avoided. The report or mitigation plan shall be submitted to the City for review and approval and implemented to the satisfaction of the City. The City's Mitigation Monitor shall verify and approve that all measures identified in the report or mitigation plan are in place prior to and/or during construction.

BIO-4. Due to the moderate potential for least Bell's vireo to be present within the drainage, no construction will occur within 300 feet of the riparian habitat within the drainage during the vireo breeding season (March 15 to September 15). If construction, including clearing, grubbing, grading, must occur during the breeding season, protocol surveys will be conducted for least Bell's vireo. The survey shall be performed to the satisfaction of the Development Services Director (or their designee) by a qualified biologist familiar with the City's MSCP Subarea Plan. The results of the pre-construction survey must be submitted in a report to the Development Services Director (or their designee) for review and approval prior to the issuance of any land development permits and prior to initiating any construction activities. If the least Bell's vireo is detected, a minimum 300-foot buffer delineated by orange biological fencing shall be established around the habitat to ensure that no work shall occur within the occupied habitat from March 15 through September 15 and on-site noise reduction techniques shall be implemented to ensure that construction noise levels do not exceed 60 dB(A) Leq-h at the location of any occupied sensitive habitat areas. The Development Services Director (or their designee) shall have the discretion to modify the buffer width depending on-site-specific conditions. If the results of the pre-construction survey determine that the survey area is unoccupied, the work may commence at the discretion of the Development Services Director (or their designee) following the review and approval of the pre-construction report.

BIO-5. Prior to issuance of any land development permits (including clearing and grubbing or grading permits), the project Applicant shall retain a City-approved biologist to conduct focused pre-construction surveys for burrowing owls. The surveys shall be performed no earlier than 30 days prior to the commencement of any clearing, grubbing, or grading activities. If occupied burrows are detected, the City-approved biologist shall prepare a passive relocation mitigation

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plan subject to the review and approval by the Wildlife agencies and City including any subsequent burrowing owl relocation plans to avoid impacts from construction-related activities.

BIO-6. Prior to recordation of each Final Map, the Applicant shall convey land within the Otay Ranch Preserve to the Otay Ranch Preserve Owner/Manager (POM) or its designee at a ratio of 1.188 acres for each acre of development area, as defined in the RMP. Access for maintenance purposes shall also be conveyed to the satisfaction of the POM, and each tentative map shall be subject to a condition that the Applicant shall execute a maintenance agreement with the POM stating that it is the responsibility of the Applicant to maintain the conveyed parcel until the Preserve CFD has generated sufficient revenues to enable the POM to assume maintenance responsibilities. The Applicant shall maintain and manage the offered conveyance property consistent with the RMP Phase 2 until the Preserve CFD has generated sufficient revenues to enable the POM to assume maintenance and management responsibilities.

BIO-7. Prior to the POM's formal acceptance of the conveyed land in fee title, the project Applicant shall prepare, to the satisfaction of the POM, Area Specific Management Directives (ASMDs) for the associated conveyance areas. The ASMDs shall incorporate the guidelines and specific requirements of the Otay Ranch RMP plans and programs, management requirements of Table 3-5 of the MSCP Subregional Plan and information and recommendations from any relevant special studies. Guidelines and requirements from these documents shall be evaluated in relationship to the Preserve configuration and specific habitats and species found within the associated conveyance areas and incorporated into the ASMDs to the satisfaction of the POM.

If you have any questions or comments regarding the content of this letter, please do not hesitate to email me at ahayworth@dudek.com or call me at 760.479.4239.

Sincerely,



Anita Hayworth, Ph.D
Senior Wildlife Biologist/Senior Project Manager

Att: *Figure 1, Regional Map*
Figure 2, Vicinity Map
Figure 3, Vegetation mapping and Wetland Delineation
Appendix A, List of Plant Species Detected on Site
Appendix B, Wetland Determination Field Data Forms
Appendix C, Special-Status Plant Species That Occur or Potentially Occur within the Study Area of Village Two Project Site
Appendix D, Special-Status Wildlife Species that Occur or Potentially Occur within the Study Area of Village Two Project Site

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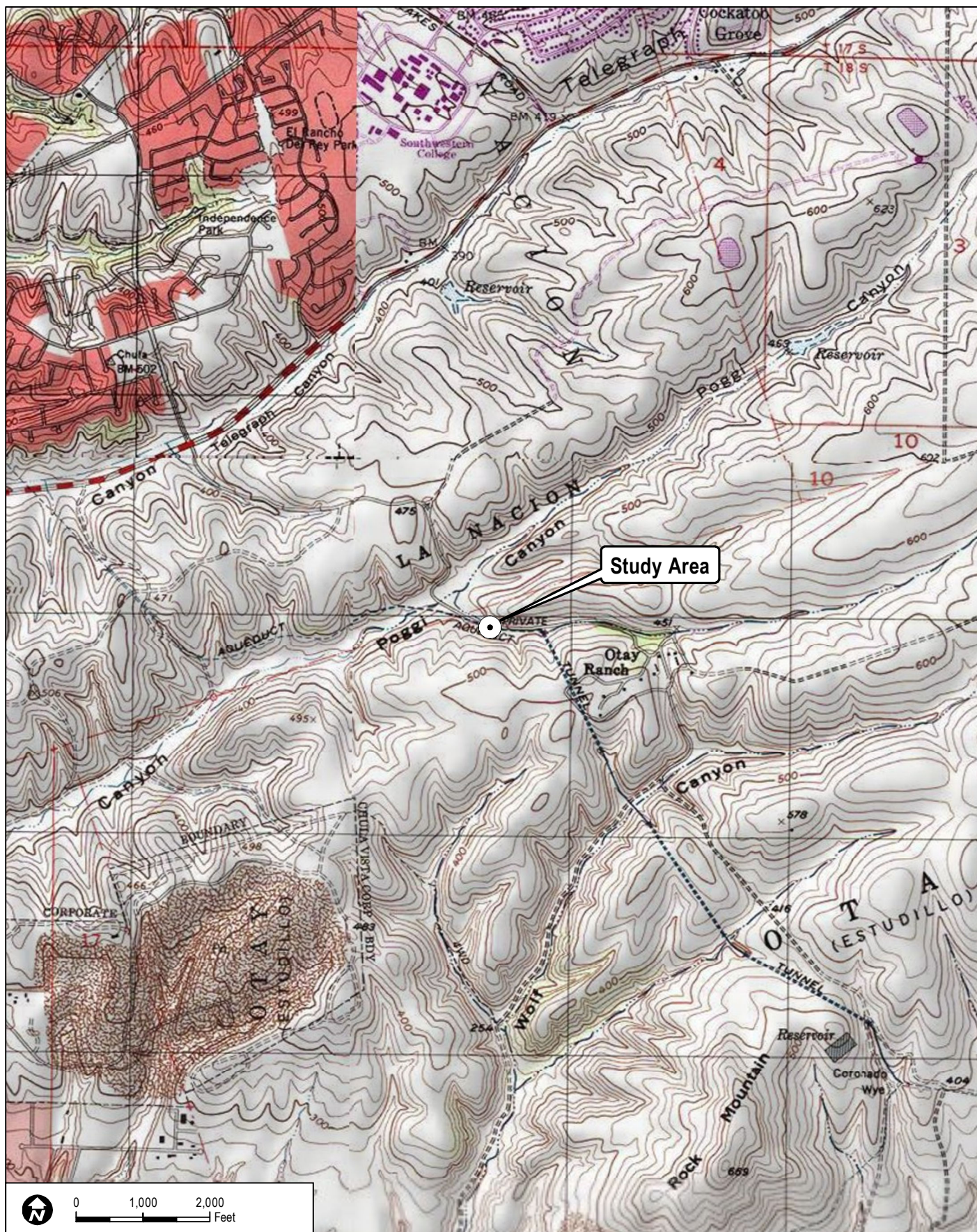
Project Site

DUDEK

6782-02

BIOLOGICAL RESOURCES ANALYSIS FOR THE OTAY RANCH VILLAGE TWO

FIGURE 1
Regional Map



DUDEK

6782-02

SOURCE: USGS 7.5-Minute Series Otay Mesa Quadrangle.

BIOLOGICAL RESOURCES ANALYSIS FOR THE OTAY RANCH VILLAGE TWO

FIGURE 2
Vicinity Map



APPENDIX A

List of Plant Species Detected on Site

APPENDIX A

List of Plant Species Detected on Site

VASCULAR SPECIES

DICOTS

AIZOACEAE—FIG-MARIGOLD FAMILY

- * *Carpobrotus chilensis*—sea fig
- * *Carpobrotus edulis*—hottentot fig

APIACEAE—CARROT FAMILY

- * *Foeniculum vulgare*—sweet fennel

ASTERACEAE—SUNFLOWER FAMILY

Jaumea carnosa—marsh jaumea

CHENOPODIACEAE—GOOSEFOOT FAMILY

Salicornia virginica—salt marsh pickleweed

CONVOLVULACEAE—MORNING-GLORY FAMILY

Cuscuta salina—saltmarsh dodder

FABACEAE—LEGUME FAMILY

- * *Acacia cyclops*—coastal wattle

FRANKENIACEAE—FRANKENIA FAMILY

Frankenia salina—alkali seaheath

SCROPHULARIACEAE—FIGWORT FAMILY

- * *Myoporum laetum*—ngaio tree

SCROPHULARIACEAE—FIGWORT FAMILY

- * *Myoporum pacificum*—Spreading Myoporum

MONOCOTS

AGAVACEAE—AGAVE FAMILY

Agave shawii—coastal agave

ARECACEAE—PALM FAMILY

- * *Phoenix canariensis*—Canary Island date palm
- * *Washingtonia robusta*—Washington fan palm

APPENDIX A (Continued)

***POACEAE*—GRASS FAMILY**

Distichlis spicata—saltgrass

***JUNCACEAE*—RUSH FAMILY**

Juncus acutus—spiny rush

NON-VASCULAR SPECIES

LIVERWORTS

***PTILIDIACEAE*—NO COMMON NAME**

Ptilidium californicum—Pacific fuzz wort

* signifies introduced (non-native) species

APPENDIX B

Wetland Determination Field Data Forms

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Otay Village 2 City/County: Chula Vista/San Diego Sampling Date: 11/04/13
 Applicant/Owner: Baldwin and Sons State: CA Sampling Point: 1A
 Investigator(s): T. Liddicoat, E. Weir Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): --- Local relief (concave, convex, none): None Slope (%): -
 Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: Salinas clay loam, 2-9 % slopes NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

| | | | | |
|---|--------------------------------------|--------------------------|--|---|
| Hydrophytic Vegetation Present? | Yes <input checked="" type="radio"/> | No <input type="radio"/> | Is the Sampled Area within a Wetland? | Yes <input checked="" type="radio"/> No <input type="radio"/> |
| Hydric Soil Present? | Yes <input checked="" type="radio"/> | No <input type="radio"/> | | |
| Wetland Hydrology Present? | Yes <input checked="" type="radio"/> | No <input type="radio"/> | | |
| Remarks: Pit approximately 2 feet from open water | | | | |

VEGETATION

| Tree Stratum (Use scientific names.) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | | | |
|---------------------------------------|------------------|-------------------|------------------|---|------------|-------|----------------|
| 1. <i>Nicotiana glauca</i> | 1 | Yes | FAC | Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) | | | |
| 2. _____ | | | | Total Number of Dominant Species Across All Strata: <u>4</u> (B) | | | |
| 3. _____ | | | | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75.0 %</u> (A/B) | | | |
| 4. _____ | | | | | | | |
| Total Cover: <u>1 %</u> | | | | | | | |
| Sapling/Shrub Stratum | Absolute % Cover | Dominant Species? | Indicator Status | Prevalence Index worksheet: | | | |
| 1. <i>Baccharis salicifolia</i> | 1 | Yes | FAC | Total % Cover of: _____ Multiply by: _____ | | | |
| 2. <i>Tamarix ramosissima</i> | 1 | Yes | Not Listed | OBL species | <u>75</u> | x 1 = | <u>0</u> |
| 3. _____ | | | | FACW species | <u>3</u> | x 2 = | <u>150</u> |
| 4. _____ | | | | FAC species | <u>25</u> | x 3 = | <u>9</u> |
| 5. _____ | | | | FACU species | <u>1</u> | x 4 = | <u>100</u> |
| Total Cover: <u>2 %</u> | | | | UPL species | <u>104</u> | x 5 = | <u>5</u> |
| | | | | Column Totals: | <u>104</u> | (A) | <u>264</u> (B) |
| | | | | Prevalence Index = B/A = <u>2.54</u> | | | |
| Herb Stratum | Absolute % Cover | Dominant Species? | Indicator Status | Hydrophytic Vegetation Indicators: | | | |
| 1. <i>Rumex crispus</i> | 1 | No | FAC | <input checked="" type="checkbox"/> Dominance Test is >50% | | | |
| 2. <i>Helminthotheca echioides</i> | 25 | No | FACU | <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ | | | |
| 3. <i>Polypogon sp.</i> | 75 | Yes | FACW | <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) | | | |
| 4. _____ | | | | <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | | | |
| 5. _____ | | | | | | | |
| 6. _____ | | | | | | | |
| 7. _____ | | | | | | | |
| 8. _____ | | | | | | | |
| Total Cover: <u>101 %</u> | | | | | | | |
| Woody Vine Stratum | Absolute % Cover | Dominant Species? | Indicator Status | Hydrophytic Vegetation Present? | | | |
| 1. _____ | | | | Yes <input checked="" type="radio"/> No <input type="radio"/> | | | |
| 2. _____ | | | | | | | |
| Total Cover: _____ % | | | | | | | |
| % Bare Ground in Herb Stratum _____ % | | | | | | | |
| % Cover of Biotic Crust _____ % | | | | | | | |

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present?

Yes ☒ No ☐

Remarks:

SOIL

Sampling Point: 1A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

| Depth (inches) | Matrix | | Redox Features | | | Loc ² | Texture ³ | Remarks |
|-------------------|---------------|----|----------------|---|-------------------|------------------|----------------------|-----------------------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | | | |
| 0-0.5 | - | - | - | - | | | - | organic thatch debris |
| 0.5-12 | 10 YR 4/2 | 90 | - | - | | | silty clay | |
| | 10 YR 3/1 | 10 | - | - | | | silty clay | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- | | |
|--|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | |

Indicators for Problematic Hydric Soils:⁴

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.**Restrictive Layer (if present):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks: Depleted Matrix because of chroma 2 and less, greater than 2 inches thick within the upper 6 inches of soil.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- | | |
|--|---|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | |

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:Surface Water Present? Yes ☐ No ☒ Depth (inches): _____Water Table Present? Yes ☐ No ☒ Depth (inches): _____Saturation Present? Yes ☐ No ☒ Depth (inches): _____
(includes capillary fringe)Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Otay Village 2 City/County: Chula Vista/San Diego Sampling Date: 11/04/13
 Applicant/Owner: Baldwin and Sons State: CA Sampling Point: 1B
 Investigator(s): T. Liddicoat, E. Weir Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): --- Local relief (concave, convex, none): None Slope (%): -
 Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: Salinas clay loam, 2-9 % slopes NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

| | | | | | |
|---|--------------------------------------|-------------------------------------|--|---------------------------|-------------------------------------|
| Hydrophytic Vegetation Present? | Yes <input type="radio"/> | No <input checked="" type="radio"/> | Is the Sampled Area within a Wetland? | Yes <input type="radio"/> | No <input checked="" type="radio"/> |
| Hydric Soil Present? | Yes <input checked="" type="radio"/> | No <input type="radio"/> | | | |
| Wetland Hydrology Present? | Yes <input type="radio"/> | No <input checked="" type="radio"/> | | | |
| Remarks: Pit approximately 12 feet from open water, approximately 9 feet from DS 1A | | | | | |

VEGETATION

| Tree Stratum (Use scientific names.) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | | | |
|--------------------------------------|------------------|-------------------|---------------------------|---|-----|-------|---------|
| 1. <i>Nicotiana glauca</i> | 1 | Yes | FAC | Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A) | | | |
| 2. | | | | Total Number of Dominant Species Across All Strata: 2 (B) | | | |
| 3. | | | | Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0 % (A/B) | | | |
| 4. | | | | | | | |
| Total Cover: 1 % | | | | | | | |
| Sapling/Shrub Stratum | | | | Prevalence Index worksheet: | | | |
| 1. | | | | Total % Cover of: Multiply by: | | | |
| 2. | | | | OBL species | | x 1 = | 0 |
| 3. | | | | FACW species | 5 | x 2 = | 10 |
| 4. | | | | FAC species | 1 | x 3 = | 3 |
| 5. | | | | FACU species | 100 | x 4 = | 400 |
| Total Cover: % | | | | UPL species | | x 5 = | 0 |
| | | | | Column Totals: | 106 | (A) | 413 (B) |
| | | | | Prevalence Index = B/A = 3.90 | | | |
| Herb Stratum | | | | Hydrophytic Vegetation Indicators: | | | |
| 1. <i>Helminthotheca echioides</i> | 100 | Yes | FACU | <input checked="" type="checkbox"/> Dominance Test is >50% | | | |
| 2. <i>Polypogon sp.</i> | 5 | No | FACW | <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ | | | |
| 3. | | | | <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) | | | |
| 4. | | | | <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | | | |
| 5. | | | | | | | |
| 6. | | | | | | | |
| 7. | | | | | | | |
| 8. | | | | | | | |
| Total Cover: 105 % | | | | | | | |
| Woody Vine Stratum | | | | ¹ Indicators of hydric soil and wetland hydrology must be present. | | | |
| 1. | | | | Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> | | | |
| 2. | | | | | | | |
| Total Cover: % | | | | | | | |
| % Bare Ground in Herb Stratum % | | | % Cover of Biotic Crust % | | | | |

Remarks:

SOIL

Sampling Point: 1B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

| Depth (inches) | Matrix | | Redox Features | | | Loc ² | Texture ³ | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|----------------------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | | | |
| 0-10 | 7.5YR 3/1 | 100 | - | - | | | silty clay | |
| | | | | | | | | |
| | | | | | | | | |
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¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- | | |
|--|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | |

Indicators for Problematic Hydric Soils:⁴

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.**Restrictive Layer (if present):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks: Depleted Matrix because of chroma 1 and greater than 2 inches thick within the upper 6 inches of soil.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- | | |
|--|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | |

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:Surface Water Present? Yes ☐ No ☒ Depth (inches): _____Water Table Present? Yes ☐ No ☒ Depth (inches): _____Saturation Present? Yes ☐ No ☒ Depth (inches): _____
(includes capillary fringe)**Wetland Hydrology Present?** Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Otay Village 2 City/County: Chula Vista/San Diego Sampling Date: 11/04/13
 Applicant/Owner: Baldwin and Sons State: CA Sampling Point: 1C
 Investigator(s): T. Liddicoat, E. Weir Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): slight depression Local relief (concave, convex, none): none Slope (%): -
 Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: Salinas clay loam, 2-9 % slopes NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

| | | | | | |
|---|--------------------------------------|-------------------------------------|--|---------------------------|-------------------------------------|
| Hydrophytic Vegetation Present? | Yes <input type="radio"/> | No <input checked="" type="radio"/> | Is the Sampled Area within a Wetland? | Yes <input type="radio"/> | No <input checked="" type="radio"/> |
| Hydric Soil Present? | Yes <input checked="" type="radio"/> | No <input type="radio"/> | | | |
| Wetland Hydrology Present? | Yes <input checked="" type="radio"/> | No <input type="radio"/> | | | |
| Remarks: Pit approximately 25 feet from open water, but within slight depression area | | | | | |

VEGETATION

| Tree Stratum (Use scientific names.) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | | | |
|---|------------------|-------------------|------------------|---|--|--|--|
| 1. _____ | _____ | _____ | _____ | Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) | | | |
| 2. _____ | _____ | _____ | _____ | Total Number of Dominant Species Across All Strata: <u>2</u> (B) | | | |
| 3. _____ | _____ | _____ | _____ | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.0 %</u> (A/B) | | | |
| 4. _____ | _____ | _____ | _____ | Total Cover: <u>_____</u> % | | | |
| Sapling/Shrub Stratum | | | | Prevalence Index worksheet: | | | |
| 1. <i>Baccharis salicifolia</i> | 40 | Yes | FAC | Total % Cover of: _____ Multiply by: _____ | | | |
| 2. _____ | _____ | _____ | _____ | OBL species _____ x 1 = <u>0</u> | | | |
| 3. _____ | _____ | _____ | _____ | FACW species <u>1</u> x 2 = <u>2</u> | | | |
| 4. _____ | _____ | _____ | _____ | FAC species <u>40</u> x 3 = <u>120</u> | | | |
| 5. _____ | _____ | _____ | _____ | FACU species <u>36</u> x 4 = <u>144</u> | | | |
| Total Cover: <u>40 %</u> | | | | UPL species <u>16</u> x 5 = <u>80</u> | | | |
| Herb Stratum | | | | Column Totals: <u>93</u> (A) <u>346</u> (B) | | | |
| 1. <i>Helminthotheca echioides</i> | 35 | Yes | FACU | Prevalence Index = B/A = <u>3.72</u> | | | |
| 2. <i>Polypogon sp.</i> | 1 | No | FACW | Hydrophytic Vegetation Indicators: | | | |
| 3. <i>Xanthium strumarium</i> | 1 | No | FACU | <input checked="" type="checkbox"/> Dominance Test is >50% | | | |
| 4. <i>Brassica nigra</i> | 15 | No | Not Listed | <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ | | | |
| 5. <i>Foeniculum vulgare</i> | 1 | No | Not Listed | <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) | | | |
| 6. _____ | _____ | _____ | _____ | <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | | | |
| 7. _____ | _____ | _____ | _____ | ¹ Indicators of hydric soil and wetland hydrology must be present. | | | |
| 8. _____ | _____ | _____ | _____ | Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> | | | |
| Total Cover: <u>53 %</u> | | | | | | | |
| Woody Vine Stratum | | | | | | | |
| 1. _____ | _____ | _____ | _____ | | | | |
| 2. _____ | _____ | _____ | _____ | | | | |
| Total Cover: <u>_____</u> % | | | | | | | |
| % Bare Ground in Herb Stratum _____ % % Cover of Biotic Crust _____ % | | | | | | | |
| Remarks: | | | | | | | |

SOIL

Sampling Point: 1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

| Depth (inches) | Matrix | | Redox Features | | | Loc ² | Texture ³ | Remarks |
|-------------------|---------------|----|----------------|---|-------------------|------------------|----------------------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | | | |
| 0-10 | 7.5YR 3/1 | 99 | 7.5YR 3/4 | 1 | C | M | clay | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5) (LRR C)
☐ 1 cm Muck (A9) (LRR D)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☒ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)
☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils:⁴

- ☐ 1 cm Muck (A9) (LRR C)
☐ 2 cm Muck (A10) (LRR B)
☐ Reduced Vertic (F18)
☐ Red Parent Material (TF2)
☐ Other (Explain in Remarks)

⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks: Depleted Matrix because of chroma 1 and greater than 2 inches thick within the upper 6 inches of soil.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1) (Nonriverine)
☐ Sediment Deposits (B2) (Nonriverine)
☐ Drift Deposits (B3) (Nonriverine)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Water-Stained Leaves (B9)
☐ Salt Crust (B11)
☐ Biotic Crust (B12)
☐ Aquatic Invertebrates (B13)
☐ Hydrogen Sulfide Odor (C1)
☒ Oxidized Rhizospheres along Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Plowed Soils (C6)
☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (Riverine)
☐ Sediment Deposits (B2) (Riverine)
☐ Drift Deposits (B3) (Riverine)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Thin Muck Surface (C7)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Shallow Aquitard (D3)
☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒

Depth (inches): _____

Water Table Present? Yes ☐ No ☒

Depth (inches): _____

Saturation Present? Yes ☐ No ☒
(includes capillary fringe)

Depth (inches): _____

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

| | | | | | |
|--|--|---|--|--------------------------------|---------------------------|
| Project/Site: <u>Otay Village 2</u> | | City/County: <u>Chula Vista/San Diego</u> | | Sampling Date: <u>11/04/13</u> | |
| Applicant/Owner: <u>Baldwin and Sons</u> | | | State: <u>CA</u> | | Sampling Point: <u>1D</u> |
| Investigator(s): <u>T. Liddicoat, E. Weir</u> | | | Section, Township, Range: _____ | | |
| Landform (hillslope, terrace, etc.): <u>hillslope</u> | | | Local relief (concave, convex, none): <u>concave</u> | | Slope (%): <u>50</u> |
| Subregion (LRR): <u>C - Mediterranean California</u> | | Lat: _____ | Long: _____ | | Datum: _____ |
| Soil Map Unit Name: <u>Salinas clay loam, 2-9 % slopes</u> | | | NWI classification: _____ | | |

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

| | | | |
|--|--------------------------------------|-------------------------------------|--|
| Hydrophytic Vegetation Present? | Yes <input type="radio"/> | No <input checked="" type="radio"/> | Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/> |
| Hydric Soil Present? | Yes <input checked="" type="radio"/> | No <input type="radio"/> | |
| Wetland Hydrology Present? | Yes <input type="radio"/> | No <input checked="" type="radio"/> | |
| Remarks: Pit approximately 10 feet from open water | | | |

| Tree Stratum (Use scientific names.) | | Absolute % Cover | Dominant Species? | Indicator Status |
|--------------------------------------|---------------------------------|------------------|-------------------------|------------------|
| 1. | <i>Schinus molle</i> | 2 | Yes | Not Listed |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| Total Cover: | | 2 % | | |
| Sapling/Shrub Stratum | | | | |
| 1. | | | | |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| Total Cover: | | % | | |
| Herb Stratum | | | | |
| 1. | <i>Helminthotheca echioides</i> | 50 | Yes | FACU |
| 2. | <i>Brassica nigra</i> | 50 | Yes | Not Listed |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |
| 8. | | | | |
| Total Cover: | | 100 % | | |
| Woody Vine Stratum | | | | |
| 1. | | | | |
| 2. | | | | |
| Total Cover: | | % | | |
| % Bare Ground in Herb Stratum | | % | % Cover of Biotic Crust | |
| | | | | |

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0 % (A/B)

Prevalence Index worksheet:

| Total % Cover of: | Multiply by: |
|-------------------|-----------------|
| OBL species | x 1 = 0 |
| FACW species | x 2 = 0 |
| FAC species | x 3 = 0 |
| FACU species | x 4 = 200 |
| UPL species | x 5 = 260 |
| Column Totals: | 102 (A) 460 (B) |

Prevalence Index = B/A = 4.51

Hydrophytic Vegetation Indicators:

☒ Dominance Test is >50%

☒ Prevalence Index is ≤3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present?

Yes ☐ No ☒

US Army Corps of Engineers

SOIL

Sampling Point: 1D[illegible]

HYDROLOGY

| Wetland Hydrology Indicators: | | | Secondary Indicators (2 or more required) | |
|--|--|--|---|--|
| Primary Indicators (any one indicator is sufficient) | | | | |
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) | <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Water Marks (B1) (Riverine) | |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) | <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Sediment Deposits (B2) (Riverine) | |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) | <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Drift Deposits (B3) (Riverine) | |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Drainage Patterns (B10) | |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Dry-Season Water Table (C2) | |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Water-Stained Leaves (B9) | <input type="checkbox"/> Thin Muck Surface (C7) | |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) | | <input type="checkbox"/> Crayfish Burrows (C8) | |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) | | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) | |
| <input type="checkbox"/> Water-Stained Leaves (B9) | | | <input type="checkbox"/> Shallow Aquitard (D3) | |
| | | | <input type="checkbox"/> FAC-Neutral Test (D5) | |
| Field Observations: | | | | |
| Surface Water Present? | Yes <input type="radio"/> No <input checked="" type="radio"/> | Depth (inches): _____ | Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/> | |
| Water Table Present? | Yes <input type="radio"/> No <input checked="" type="radio"/> | Depth (inches): _____ | | |
| Saturation Present? | Yes <input type="radio"/> No <input checked="" type="radio"/> | Depth (inches): _____ | | |
| (includes capillary fringe) | | | | |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | | | | |
| Remarks: | | | | |

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Otay Village 2 City/County: Chula Vista/San Diego Sampling Date: 11/04/13
 Applicant/Owner: Baldwin and Sons State: CA Sampling Point: 2
 Investigator(s): T. Liddicoat, E. Weir Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): none Local relief (concave, convex, none): concave Slope (%): -
 Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: Diablo clay, 9-15% slopes NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

| | | | | | |
|--|--------------------------------------|-------------------------------------|--|---------------------------|-------------------------------------|
| Hydrophytic Vegetation Present? | Yes <input type="radio"/> | No <input checked="" type="radio"/> | Is the Sampled Area within a Wetland? | Yes <input type="radio"/> | No <input checked="" type="radio"/> |
| Hydric Soil Present? | Yes <input checked="" type="radio"/> | No <input type="radio"/> | | | |
| Wetland Hydrology Present? | Yes <input type="radio"/> | No <input checked="" type="radio"/> | | | |
| Remarks: Pit approximately 12 feet from water flow | | | | | |

VEGETATION

| Tree Stratum (Use scientific names.) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | | | |
|--|------------------|-------------------|---------------------------|---|---------|---------|--|
| 1. <i>Salix lasiolepis</i> | 2 | Yes | FACW | Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A) | | | |
| 2. | | | | Total Number of Dominant Species Across All Strata: 3 (B) | | | |
| 3. | | | | Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7 % (A/B) | | | |
| 4. | | | | | | | |
| Total Cover: 2 % | | | | | | | |
| Sapling/Shrub Stratum | | | | Prevalence Index worksheet: | | | |
| 1. <i>Baccharis salicifolia</i> | 5 | Yes | FAC | Total % Cover of: Multiply by: | | | |
| 2. | | | | OBL species | x 1 = | 0 | |
| 3. | | | | FACW species | x 2 = | 4 | |
| 4. | | | | FAC species | x 3 = | 30 | |
| 5. | | | | FACU species | x 4 = | 380 | |
| Total Cover: 5 % | | | | UPL species | x 5 = | 0 | |
| | | | | Column Totals: | 107 (A) | 414 (B) | |
| | | | | Prevalence Index = B/A = 3.87 | | | |
| Herb Stratum | | | | Hydrophytic Vegetation Indicators: | | | |
| 1. <i>Helminthotheca echioides</i> | 90 | Yes | FACU | <input checked="" type="checkbox"/> Dominance Test is >50% | | | |
| 2. <i>Isocoma menziesii</i> | 5 | No | FAC | <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ | | | |
| 3. <i>Cirsium vulgare</i> | 5 | No | FACU | <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) | | | |
| 4. | | | | <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | | | |
| 5. | | | | | | | |
| 6. | | | | | | | |
| 7. | | | | | | | |
| 8. | | | | | | | |
| Total Cover: 100% | | | | ¹ Indicators of hydric soil and wetland hydrology must be present. | | | |
| Woody Vine Stratum | | | | Hydrophytic Vegetation Present? | | | |
| 1. | | | | Yes <input type="radio"/> | | | |
| 2. | | | | No <input checked="" type="radio"/> | | | |
| Total Cover: % | | | | | | | |
| % Bare Ground in Herb Stratum % | | | % Cover of Biotic Crust % | | | | |
| Remarks: Although dominance test yielded greater than 50%, the area was dominated by naturalized (i.e., non-native) annual herbaceous species; thus, non-hydrophytic vegetation was concluded. | | | | | | | |

SOIL

Sampling Point: 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

| Depth (inches) | Matrix | | Redox Features | | | Loc ² | Texture ³ | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|----------------------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | | | |
| 0-10 | 10YR 3/2 | 100 | - | - | | | silty clay loam | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- | | |
|--|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | |

Indicators for Problematic Hydric Soils:⁴

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks: Depleted Matrix because of chroma 2 and greater than 2 inches thick within the upper 6 inches of soil.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- | | |
|--|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | |

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

Saturation Present? Yes ☐ No ☒ Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Otay Village 2 City/County: Chula Vista/San Diego Sampling Date: 11/04/13
 Applicant/Owner: Baldwin and Sons State: CA Sampling Point: 3A
 Investigator(s): T. Liddicoat, E. Weir Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): -
 Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: Diablo clay, 9-15% slopes NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

| | | | | |
|--|--------------------------------------|--------------------------|--|---|
| Hydrophytic Vegetation Present? | Yes <input checked="" type="radio"/> | No <input type="radio"/> | Is the Sampled Area within a Wetland? | Yes <input checked="" type="radio"/> No <input type="radio"/> |
| Hydric Soil Present? | Yes <input checked="" type="radio"/> | No <input type="radio"/> | | |
| Wetland Hydrology Present? | Yes <input checked="" type="radio"/> | No <input type="radio"/> | | |
| Remarks: Pit approximately 10 feet from water flow | | | | |

VEGETATION

| Tree Stratum (Use scientific names.) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | | | |
|--------------------------------------|------------------|-------------------|---------------------------|---|---------|---------|--|
| 1. <i>Salix lasiolepis</i> | 2 | Yes | FACW | Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A) | | | |
| 2. | | | | Total Number of Dominant Species Across All Strata: 3 (B) | | | |
| 3. | | | | Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 % (A/B) | | | |
| 4. | | | | | | | |
| Total Cover: 2 % | | | | | | | |
| Sapling/Shrub Stratum | | | | Prevalence Index worksheet: | | | |
| 1. <i>Baccharis salicifolia</i> | 60 | Yes | FAC | Total % Cover of: Multiply by: | | | |
| 2. <i>Nicotiana glauca</i> | 10 | No | FAC | OBL species | x 1 = | 0 | |
| 3. <i>Cortaderia selloana</i> | 1 | No | FACU | FACW species | x 2 = | 164 | |
| 4. | | | | FAC species | x 3 = | 210 | |
| 5. | | | | FACU species | x 4 = | 44 | |
| Total Cover: 71 % | | | | UPL species | x 5 = | 0 | |
| | | | | Column Totals: | 163 (A) | 418 (B) | |
| | | | | Prevalence Index = B/A = 2.56 | | | |
| Herb Stratum | | | | Hydrophytic Vegetation Indicators: | | | |
| 1. <i>Heliotropum curvassicatum</i> | 10 | No | FACU | <input checked="" type="checkbox"/> Dominance Test is >50% | | | |
| 2. <i>Polypogon sp.</i> | 80 | Yes | FACW | <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ | | | |
| 3. | | | | <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) | | | |
| 4. | | | | <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | | | |
| 5. | | | | | | | |
| 6. | | | | | | | |
| 7. | | | | | | | |
| 8. | | | | | | | |
| Total Cover: 90 % | | | | | | | |
| Woody Vine Stratum | | | | ¹ Indicators of hydric soil and wetland hydrology must be present. | | | |
| 1. | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | | | |
| 2. | | | | | | | |
| Total Cover: % | | | | | | | |
| % Bare Ground in Herb Stratum % | | | % Cover of Biotic Crust % | | | | |

Remarks:

SOIL

Sampling Point: 3A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

| Depth (inches) | Matrix | | Redox Features | | | Loc ² | Texture ³ | Remarks |
|-------------------|---------------|----|----------------|---|-------------------|------------------|----------------------|-----------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | | | |
| 0-10 | 10YR 4/2 | 95 | - | - | | | silty clay | |
| | 2.5Y 7/1 | 2 | - | - | | | - | bentonite |
| | 10YR 6/2 | 3 | - | - | | | silty clay | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- | | |
|--|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | |

Indicators for Problematic Hydric Soils:⁴

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.**Restrictive Layer (if present):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks: Depleted Matrix because of chroma 2 and less with greater than 2 inches thick within the upper 6 inches of soil.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- | | |
|--|---|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | |

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:Surface Water Present? Yes ☐ No ☒ Depth (inches): _____Water Table Present? Yes ☐ No ☒ Depth (inches): _____Saturation Present? Yes ☐ No ☒ Depth (inches): _____
(includes capillary fringe)**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Otay Village 2 City/County: Chula Vista/San Diego Sampling Date: 11/04/13
 Applicant/Owner: Baldwin and Sons State: CA Sampling Point: 3B
 Investigator(s): T. Liddicoat, E. Weir Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): -
 Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: Diablo clay, 9-15% slopes NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

| | | | | | |
|--|--------------------------------------|-------------------------------------|--|---------------------------|-------------------------------------|
| Hydrophytic Vegetation Present? | Yes <input type="radio"/> | No <input checked="" type="radio"/> | Is the Sampled Area within a Wetland? | Yes <input type="radio"/> | No <input checked="" type="radio"/> |
| Hydric Soil Present? | Yes <input checked="" type="radio"/> | No <input type="radio"/> | | | |
| Wetland Hydrology Present? | Yes <input type="radio"/> | No <input checked="" type="radio"/> | | | |
| Remarks: Pit approximately 20 feet from water flow, approximately 10 feet away from DS 3A. | | | | | |

VEGETATION

| Tree Stratum (Use scientific names.) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | | | |
|---|------------------|-------------------|---------------------------------------|---|-------------|-------|----------------|
| 1. _____ | | | | Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) | | | |
| 2. _____ | | | | Total Number of Dominant Species Across All Strata: <u>2</u> (B) | | | |
| 3. _____ | | | | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.0 %</u> (A/B) | | | |
| 4. _____ | | | | | | | |
| Total Cover: <u> </u> % | | | | | | | |
| <u>Sapling/Shrub Stratum</u> | | | | Prevalence Index worksheet: | | | |
| 1. <i>Nicotiana glauca</i> | <u>10</u> | <u>Yes</u> | <u>FAC</u> | Total % Cover of: _____ Multiply by: _____ | | | |
| 2. _____ | | | | OBL species | <u> </u> | x 1 = | <u>0</u> |
| 3. _____ | | | | FACW species | <u> </u> | x 2 = | <u>0</u> |
| 4. _____ | | | | FAC species | <u>10</u> | x 3 = | <u>30</u> |
| 5. _____ | | | | FACU species | <u>45</u> | x 4 = | <u>180</u> |
| Total Cover: <u>10 %</u> | | | | UPL species | <u>55</u> | x 5 = | <u>275</u> |
| | | | | Column Totals: | <u>110</u> | (A) | <u>485</u> (B) |
| | | | | Prevalence Index = B/A = <u>4.41</u> | | | |
| <u>Herb Stratum</u> | | | | Hydrophytic Vegetation Indicators: | | | |
| 1. <i>Brassica nigra</i> | <u>50</u> | <u>Yes</u> | <u>Not Listed</u> | <input checked="" type="checkbox"/> Dominance Test is >50% | | | |
| 2. <i>Datura wrightii</i> | <u>5</u> | <u>No</u> | <u>Not Listed</u> | <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ | | | |
| 3. <i>Cirsium vulgare</i> | <u>25</u> | <u>No</u> | <u>FACU</u> | <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) | | | |
| 4. <i>Salsola tragus</i> | <u>20</u> | <u>No</u> | <u>FACU</u> | <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | | | |
| 5. _____ | | | | | | | |
| 6. _____ | | | | | | | |
| 7. _____ | | | | | | | |
| 8. _____ | | | | | | | |
| Total Cover: <u>100 %</u> | | | | | | | |
| <u>Woody Vine Stratum</u> | | | | ¹ Indicators of hydric soil and wetland hydrology must be present. | | | |
| 1. _____ | | | | Hydrophytic Vegetation Present? | | | |
| 2. _____ | | | | Yes <input type="radio"/> No <input checked="" type="radio"/> | | | |
| Total Cover: <u> </u> % | | | | | | | |
| % Bare Ground in Herb Stratum <u> </u> % | | | % Cover of Biotic Crust <u> </u> % | | | | |

Remarks:

SOIL

Sampling Point: 3B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

| Depth (inches) | Matrix | | Redox Features | | | Texture ³ | Remarks |
|-------------------|---------------|----|----------------|---|-------------------|----------------------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | | |
| 0-10 | 10YR 4/2 | 98 | - | - | | clay loam | |
| | 2.5YR 6/3 | 2 | - | - | | clay loam | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- | | |
|--|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | |

Indicators for Problematic Hydric Soils:⁴

- ☐ 1 cm Muck (A9) (**LRR C**)
☐ 2 cm Muck (A10) (**LRR B**)
☐ Reduced Vertic (F18)
☐ Red Parent Material (TF2)
☐ Other (Explain in Remarks)

⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.**Restrictive Layer (if present):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks: Depleted Matrix because of chroma 2 and less with greater than 2 inches thick within the upper 6 inches of soil.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- | | |
|--|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | |

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
☐ Sediment Deposits (B2) (**Riverine**)
☐ Drift Deposits (B3) (**Riverine**)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Thin Muck Surface (C7)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Shallow Aquitard (D3)
☐ FAC-Neutral Test (D5)

Field Observations:Surface Water Present? Yes ☐ No ☒ Depth (inches): _____Water Table Present? Yes ☐ No ☒ Depth (inches): _____Saturation Present? Yes ☐ No ☒ Depth (inches): _____
(includes capillary fringe)**Wetland Hydrology Present?** Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Otay Village 2 City/County: Chula Vista/San Diego Sampling Date: 11/04/13
 Applicant/Owner: Baldwin and Sons State: CA Sampling Point: 4
 Investigator(s): T. Liddicoat, E. Weir Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): basin Local relief (concave, convex, none): convex Slope (%): -
 Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: Diablo clay, 9-15% slopes NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

| | | | | | |
|---|---------------------------|-------------------------------------|--|---------------------------|-------------------------------------|
| Hydrophytic Vegetation Present? | Yes <input type="radio"/> | No <input checked="" type="radio"/> | Is the Sampled Area within a Wetland? | Yes <input type="radio"/> | No <input checked="" type="radio"/> |
| Hydric Soil Present? | Yes <input type="radio"/> | No <input checked="" type="radio"/> | | | |
| Wetland Hydrology Present? | Yes <input type="radio"/> | No <input checked="" type="radio"/> | | | |
| Remarks: Pit within depression basin-like feature | | | | | |

VEGETATION

| Tree Stratum (Use scientific names.) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | | | |
|--|------------------|-------------------|-------------------------------------|---|---------------|----------------|--|
| 1. <i>Schinus molle</i> | 75 | Yes | Not Listed | Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) | | | |
| 2. | | | | Total Number of Dominant Species Across All Strata: <u>3</u> (B) | | | |
| 3. | | | | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33.3 %</u> (A/B) | | | |
| 4. | | | | | | | |
| Total Cover: <u>75 %</u> | | | | | | | |
| Sapling/Shrub Stratum | | | | Prevalence Index worksheet: | | | |
| 1. <i>Nicotiana glauca</i> | 10 | Yes | FAC | Total % Cover of: Multiply by: | | | |
| 2. | | | | OBL species | x 1 = | <u>0</u> | |
| 3. | | | | FACW species | x 2 = | <u>0</u> | |
| 4. | | | | FAC species | x 3 = | <u>30</u> | |
| 5. | | | | FACU species | x 4 = | <u>40</u> | |
| Total Cover: <u>10 %</u> | | | | UPL species | x 5 = | <u>380</u> | |
| | | | | Column Totals: | <u>96</u> (A) | <u>450</u> (B) | |
| | | | | Prevalence Index = B/A = <u>4.69</u> | | | |
| Herb Stratum | | | | Hydrophytic Vegetation Indicators: | | | |
| 1. <i>Cirsium vulgare</i> | 10 | Yes | FACU | <input checked="" type="checkbox"/> Dominance Test is >50% | | | |
| 2. <i>Hirschfeldia incana</i> | 1 | No | Not Listed | <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ | | | |
| 3. | | | | <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) | | | |
| 4. | | | | <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | | | |
| 5. | | | | | | | |
| 6. | | | | | | | |
| 7. | | | | | | | |
| 8. | | | | | | | |
| Total Cover: <u>11 %</u> | | | | | | | |
| Woody Vine Stratum | | | | ¹ Indicators of hydric soil and wetland hydrology must be present. | | | |
| 1. | | | | | | | |
| 2. | | | | | | | |
| Total Cover: <u> % </u> | | | | Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> | | | |
| % Bare Ground in Herb Stratum <u>0 %</u> | | | % Cover of Biotic Crust <u> % </u> | | | | |

Remarks: Very little vegetation growth below pepper tree canopy, lots of pepper tree leaf litter.

SOIL

Sampling Point: 4**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth (inches) | Matrix | | Redox Features | | | Loc ² | Texture ³ | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|----------------------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | | | |
| 0-10 | 10YR 6/3 | 100 | - | - | | | clay loam | |
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¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5) (**LRR C**)
☐ 1 cm Muck (A9) (**LRR D**)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)
☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils:⁴

- ☐ 1 cm Muck (A9) (**LRR C**)
☐ 2 cm Muck (A10) (**LRR B**)
☐ Reduced Vertic (F18)
☐ Red Parent Material (TF2)
☐ Other (Explain in Remarks)

⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.**Restrictive Layer (if present):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks: Bentonite observed on soil pit walls

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1) (**Nonriverine**)
☐ Sediment Deposits (B2) (**Nonriverine**)
☐ Drift Deposits (B3) (**Nonriverine**)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Water-Stained Leaves (B9)
☐ Salt Crust (B11)
☐ Biotic Crust (B12)
☐ Aquatic Invertebrates (B13)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres along Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Plowed Soils (C6)
☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
☐ Sediment Deposits (B2) (**Riverine**)
☐ Drift Deposits (B3) (**Riverine**)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Thin Muck Surface (C7)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Shallow Aquitard (D3)
☐ FAC-Neutral Test (D5)

Field Observations:Surface Water Present? Yes ☐ No ☒ Depth (inches): _____Water Table Present? Yes ☐ No ☒ Depth (inches): _____Saturation Present? Yes ☐ No ☒ Depth (inches): _____
(includes capillary fringe)Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

APPENDIX C

*Special-Status Plant Species That Occur or
Potentially Occur within the Study Area of Village
Two Project Site*

APPENDIX C
Special-Status Plant Species That Occur or Potentially Occur
within the Study Area of Village Two Project Site

| Scientific Name | Common Name | Status ¹ Federal/ State/MSCP | CRPR | Primary Habitat Associations/Life Form/Blooming Period/ Elevation Range | Status on Site or Potential to Occur – Village Two Study Area |
|---------------------------------|---------------------------|--|------|---|--|
| <i>Acanthomintha ilicifolia</i> | San Diego thorn- mint | FT/SE/MSCP NE | 1B.1 | Chaparral, coastal scrub, valley and foothill grassland, vernal pools; clay/annual herb/April–June/30–3,150 feet | Not expected; would have been detected during previous surveys. Within the entire Village two, the species was recorded in the southwestern portion of the village. |
| <i>Adolphia californica</i> | California adolphia | None/None/None | 2.1 | Chaparral, coastal scrub, valley and foothill grassland; clay/deciduous shrub/December–May/150–2,430 feet | Low potential; would have been detected during previous and recent surveys. |
| <i>Agave shawii</i> | Shaw's agave | None/None/None | 2.1 | Coastal bluff scrub, coastal scrub/leaf succulent/September–May/30–250 feet | Not expected; would have been detected during previous and recent surveys. |
| <i>Ambrosia chenopodiifolia</i> | San Diego bur-sage | None/None/None | 2.1 | Coastal scrub/shrub/April–June/180– 500 feet | Not expected; would have been detected during previous and recent surveys. |
| <i>Ambrosia monogyra</i> | Singlewhorl burrobrush | None/None/None | 2.2 | Chaparral, Sonoran desert scrub; sandy/shrub/August–November/30– 1,650 feet | Not expected; would have been detected during previous and recent surveys. |
| <i>Ambrosia pumila</i> | Dwarf burr ambrosia | FE/None/MSCP NE | 1B.1 | Chaparral, coastal scrub, valley and foothill grassland, vernal pools; often disturbed, sometimes alkaline/rhizomatous herb/May – October/60–1,360 feet | Not expected; would have been detected during previous surveys. |

APPENDIX C (Continued)

| Scientific Name | Common Name | Status ¹ Federal/ State/MSCP | CRPR | Primary Habitat Associations/Life Form/Blooming Period/ Elevation Range | Status on Site or Potential to Occur – Village Two Study Area |
|--|--------------------------|--|------|---|---|
| <i>Aphanisma blitoides</i> | Aphanisma | None/None/None | 1B.2 | Coastal bluff scrub, coastal dunes, coastal scrub; sandy/annual herb/March – June/<1,000 feet | Not expected; would have been detected during previous surveys. |
| <i>Arctostaphylos otayensis</i> | Otay manzanita | None/None/None | 1B.2 | Chaparral, cismontane woodland; metavolcanic/evergreen shrub/January–March/900–5,600 feet | Not expected; site is below species' known elevation range. |
| <i>Artemisia palmeri</i> | San Diego sagewort | None/None/None | 4.2 | Chaparral, coastal scrub, riparian forest, scrub, and woodland; sandy, mesic/deciduous shrub/May–September/50–3,000 feet | Low potential; would have been detected during previous and recent surveys. |
| <i>Astragalus deanei</i> | Dean's milk-vetch | None/None/None | 1B.1 | Chaparral, coastal scrub, riparian forest /perennial herb/February–May/250–2,200 feet | Not expected; would have been detected during previous surveys. |
| <i>Astragalus oocarpus</i> | San Diego milk-vetch | None/None/None | 1B.2 | Chaparral (openings), cismontane woodland/perennial herb/May–August/1,000–5,000 feet | Not expected; site is below the species' known elevation range. |
| <i>Astragalus tener</i> var. <i>titi</i> | Coastal dunes milk-vetch | FE/SE/None | 1B.1 | Coastal bluff scrub, coastal dunes, coastal prairie; mesic, often vernally mesic/annual herb/March–May/< 170 feet | Not expected; no suitable habitat. Site is slightly above the species' known elevation range. |
| <i>Atriplex coulteri</i> | Coulter's saltbush | None/None/None | 1B.2 | Coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland; alkaline or clay/perennial herb/March–October/10–1,500 feet | Not expected; would have been detected during previous surveys. |
| <i>Atriplex pacifica</i> | South coast saltscale | None/None/None | 1B.2 | Coastal bluff scrub, coastal dunes, coastal scrub, playas/annual herb/March–October/< 500 feet | Not expected; would have been detected during previous surveys. Within the entire Village Two, the species was recorded within ridges above Poggi Canyon. |

APPENDIX C (Continued)

| Scientific Name | Common Name | Status ¹ Federal/ State/MSCP | CRPR | Primary Habitat Associations/Life Form/Blooming Period/ Elevation Range | Status on Site or Potential to Occur – Village Two Study Area |
|--|------------------------------|--|------|--|---|
| <i>Atriplex serenana</i> var. <i>davidsonii</i> | Davidson's saltscale | None/None/None | 1B.2 | Coastal bluff scrub, coastal scrub; alkaline/annual herb/April–October/30– 660 feet | Not expected; would have been detected during previous surveys. |
| <i>Baccharis vanessae</i> | Encinitas baccharis | FT/SE/None | 1B.1 | Chaparral, cismontane woodland; sandstone/deciduous shrub/August– November/200–2,400 feet | Not expected. Not observed during surveys. Nearest CNDDB occurrence is over 5 miles away on Otay Mountain. |
| <i>Bahiopsis</i> (= <i>Viguiera</i>) <i>laciniata</i> | San Diego County viguiera | None/None/None | 4.2 | Chaparral, coastal scrub/perennial shrub/ February–August/197–2,461 feet | Not expected; would have been detected during previous and recent surveys. Within the entire Village Two, the species was recorded within the south central portion. |
| <i>Bergerocactus emoryi</i> | Golden-spined cereus | None/None/None | 2.2 | Closed–cone conifer forest, chaparral, coastal scrub; sandy/shrub/May–June/10– 1,300 feet | Not expected; would have been detected during previous and recent surveys. |
| <i>Bloomeria</i> (= <i>Muilla</i>) <i>clevelandii</i> | San Diego goldenstar | None/None/MSCP | 1B.1 | Chaparral, coastal scrub, valley and foothill grassland, vernal pools; clay/bulbiferous herb/April–May/160– 1,550 feet | Not expected; would have been detected during previous surveys. |
| <i>Brodiaea orcuttii</i> | Orcutt's brodiaea | None/None/MSCP NE | 1B.1 | Closed–cone conifer forest, chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland, vernal pools; mesic, clay, sometimes serpentine/bulbiferous herb/May–July/100– 5,550 feet | Not expected; would have been detected during previous surveys. |

APPENDIX C (Continued)

| Scientific Name | Common Name | Status ¹ Federal/ State/MSCP | CRPR | Primary Habitat Associations/Life Form/Blooming Period/ Elevation Range | Status on Site or Potential to Occur – Village Two Study Area |
|--|------------------------------|--|------|--|---|
| <i>Calochortus dunnii</i> | Dunn's mariposa lily | None/SR/None | 1B.2 | Closed-cone conifer forest, chaparral; gabbroic or metavolcanic/bulbiferous herb/April–June/1,250–6,000 feet | Not expected; site elevation is below the species' known elevation range. |
| <i>Camissonia lewisii</i> | Lewis's evening primrose | None/None/None | 3 | Coastal bluff scrub, cismontane woodland, coastal dunes, coastal scrub, valley and foothill grassland; sandy or clay/annual herb/March–May (June)/<1,000 feet | Not expected; would have been detected during previous surveys. |
| <i>Caulanthus stenocarpus</i> (=C. <i>heterophyllus</i> var. <i>heterophyllus</i>) | Slender-pod jewel- flower | None/None/MSCP | None | Chaparral, coastal scrub/annual herb; fire follower/March–May/< 4,250 feet | Not expected; would have been detected during previous surveys. Not recorded in the vicinity. |
| <i>Ceanothus cyaneus</i> | Lakeside ceanothus | None/None/None | 1B.2 | Closed-cone conifer forest, chaparral/evergreen shrub/April– June/770–2,500 feet | Not expected; limited suitable habitat present. Site is below species' known elevation range. |
| <i>Ceanothus otayensis</i> | Otay Mountain ceanothus | None/None/None | 1B.2 | Chaparral; metavolcanic or gabbroic/evergreen shrub/January– April/2,000–3,600 feet | Not expected; site is below species' known elevation range. |
| <i>Ceanothus verrucosus</i> | Wart-stemmed ceanothus | None/None/None | 2.2 | Chaparral/evergreen shrub/December– May/< 1,250 feet | Not expected; would have been detected during previous and recent surveys. |
| <i>Chaenactis glabriuscula</i> var. <i>orcuttiana</i> | Orcutt's pincushion | None/None/None | 1B.1 | Coastal bluff scrub, coastal dunes/annual herb/January –August/10–330 feet | Not expected; no suitable habitat present. |
| <i>Chorizanthe orcuttiana</i> | Orcutt's spineflower | FE/SE | 1B.1 | Maritime chaparral, closed-cone conifer forest, coastal scrub/annual herb/March– May/< 400 feet | Not expected; would have been detected during previous surveys. |
| <i>Chorizanthe polygonoides</i> var. <i>longispina</i> | Long-spined spineflower | None/None | 1B.2 | Chaparral, coastal scrub, meadows and seeps, valley and foothill grassland; often clay/annual herb/April–July/100–5000 feet | Not expected; would have been detected during previous surveys. |

APPENDIX C (Continued)

| Scientific Name | Common Name | Status ¹ Federal/ State/MSCP | CRPR | Primary Habitat Associations/Life Form/Blooming Period/ Elevation Range | Status on Site or Potential to Occur – Village Two Study Area |
|--|------------------------------|--|------|--|--|
| <i>Clarkia delicata</i> | Delicate clarkia | None/None/None | 1B.2 | Chaparral, cismontane woodland/annual herb/April–June/770–3,300 feet | Not expected; site is below species' known elevation range. |
| <i>Comarostaphylis diversifolia</i> ssp. <i>diversifolia</i> | Summer-holly | None/None/None | 1B.2 | Chaparral, cismontane woodland/evergreen shrub/April–June/100–1,800 feet | Not expected; would have been detected during previous and recent surveys. |
| <i>Chloropyron</i> (= <i>Cordylanthus</i>) <i>maritimus</i> ssp. <i>maritimus</i> | Salt marsh bird's-beak | FE/SE/MSCP Covered NE | 1B.2 | Coastal dunes, coastal saltwater marshes and swamps/annual herb; hemiparasitic /May–October/< 100 feet | Not expected. Not recorded in the vicinity. No suitable habitat and the site is above the species' known elevation range. |
| <i>Convolvulus simulans</i> | Small-flowered morning-glory | None/None/None | 4.2 | Chaparral (openings), coastal scrub, valley and foothill grassland; clay, serpentinite seeps/annual herb/March–July/98–2,297 feet | Not expected; would have been detected during previous surveys. |
| <i>Cordylanthus parviflorus</i> | Small-flowered bird's-beak | None/None/None | 2.3 | Joshua tree woodland, Mojavean desert scrub, pinyon and juniper woodland/hemiparasitic annual herb /August–October /2,300–7,300 feet | Not expected; no suitable habitat on site and outside elevational range. |
| <i>Corethrogyne filaginifolia</i> var. <i>incana</i> | San Diego sand aster | None/None/None | 1B.1 | Chaparral, coastal bluff scrub, coastal scrub/perennial herb/June–September/10–380 feet | Not expected; would have been detected during previous surveys. |
| <i>Deinandra</i> (= <i>Hemizonia</i>) <i>conjugens</i> | Otay tarplant | FT/SE/MSCP Covered NE | 1B.1 | Coastal scrub, valley and foothill grassland; clay/annual herb/May–June/80–1,000 feet | Not expected; would have been detected during previous surveys. Within the entire Village Two, in previous surveys, this species was observed within the preserve area and in the southwestern portion of the village. . |

APPENDIX C (Continued)

| Scientific Name | Common Name | Status ¹ Federal/ State/MSCP | CRPR | Primary Habitat Associations/Life Form/Blooming Period/ Elevation Range | Status on Site or Potential to Occur – Village Two Study Area |
|--|----------------------|--|------|---|--|
| <i>Deinandra</i> (=Hemizonia) <i>floribunda</i> | Tecate tarplant | None/None/None | 1B.2 | Chaparral, coastal scrub/annual herb/August–October/230–4,000 feet | Not expected. Outside species' range, which occurs farther east. The nearest occurrence is over 10 miles east of the project site. |
| <i>Dicranostegia orcuttiana</i> (=Cordylanthus <i>orcuttianus</i>) | Orcutt's bird's-beak | None/None/MSCP Covered | 2.1 | Coastal scrub/annual herb/(Mar) April–July (Sept)/30–1,150 feet | Not expected; would have been detected during previous surveys. |
| <i>Dudleya attenuata</i> ssp. <i>orcuttii</i> | Orcutt's dudleya | None/None/None | 2.1 | Coastal bluff scrub, chaparral, coastal scrub; rocky or gravelly/perennial herb/May–July/< 165 feet | Not expected; would have been detected during surveys and site is slightly above species' known elevation range and no appropriate rocky or gravelly substrates. |
| <i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i> | Blochman's dudleya | None/None/None | 1B.1 | Chaparral, coastal bluff scrub, coastal scrub, valley and foothill grassland, rocky; often clay or serpentinite/perennial herb/April–June/15–1,500 feet | Not expected; would have been detected during previous surveys. No appropriate rocky substrates are present. |
| <i>Dudleya variegata</i> | Variegated dudleya | None/None/MSCP Covered NE | 1B.2 | Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland, vernal pools; clay/perennial herb/April–June/< 1,900 feet | Low potential; would have been detected during previous surveys. Within the entire Village Two, this species was recorded in the western portion. |
| <i>Dudleya viscida</i> | Sticky dudleya | None/None/None | 1B.2 | Coastal bluff scrub, chaparral, coastal scrub; rocky/perennial herb/May–June/30–1,800 feet | Not expected; would have been detected during previous surveys. |

APPENDIX C (Continued)

| Scientific Name | Common Name | Status ¹ Federal/ State/MSCP | CRPR | Primary Habitat Associations/Life Form/Blooming Period/ Elevation Range | Status on Site or Potential to Occur – Village Two Study Area |
|--|-------------------------|--|------|--|---|
| <i>Ericameria palmeri</i> ssp. <i>palmeri</i> | Palmer's goldenbush | None/None/MSCP NE | 2.2 | Chaparral, coastal scrub; mesic/evergreen shrub/(July) September–November/100–1,970 feet | Not expected; evergreen shrub would have been detected during previous and recent surveys. |
| <i>Eryngium aristulatum</i> var. <i>parishii</i> | San Diego button-celery | FE/SE/MSCP | 1B.1 | Coastal scrub, valley and foothill grassland, vernal pools, mesic/annual–perennial herb/April–June/60–2,000 feet | Not expected; no vernal pools on site. |
| <i>Erysimum ammophilum</i> | Sand-loving wallflower | None/None/None | 1B.2 | Maritime chaparral, coastal dunes, coastal scrub; sandy, openings/perennial herb/February–June/<200 feet | Not expected; no suitable sandy substrates and would have been detected during previous surveys if present. The site is also slightly above the species' known elevation range. |
| <i>Euphorbia misera</i> | Cliff spurge | None/None/None | 2.2 | Coastal bluff scrub, coastal scrub, Mojavean desert scrub; rocky/shrub/December–August/30–1,650 feet | Not expected; would have been detected during previous and recent surveys. |
| <i>Ferocactus viridescens</i> | San Diego barrel cactus | None/None/MSCP Covered | 2.1 | Chaparral, coastal scrub, valley and foothill grassland, vernal pools/perennial stem succulent/May–June/< 1,500 feet | Not expected; would have been detected during previous and current surveys. Within the entire Village Two, the species was recorded in the western portion. |
| <i>Frankenia palmeri</i> | Palmer's frankenia | None/None/None | 2.1 | Coastal dunes, coastal saltwater marsh and swamps, playas/perennial herb/May–July/< 30 feet | No potential to occur; no suitable habitat and the site is above the species' known elevation range. Also, the species would have been detected during surveys if present. |

APPENDIX C (Continued)

| Scientific Name | Common Name | Status ¹ Federal/ State/MSCP | CRPR | Primary Habitat Associations/Life Form/Blooming Period/ Elevation Range | Status on Site or Potential to Occur – Village Two Study Area |
|--|---------------------------|--|------|--|--|
| <i>Fraxinus parryi</i> | Chaparral ash | None/None/None | 2.2 | Chaparral/shrub/March–May/700– 2,000 feet | Not expected; the shrub would have been detected during surveys if present. Also, the site is below the species' known elevation range. |
| <i>Fremontodendron mexicanum</i> | Mexican flannelbush | FE/SR/None | 1B.1 | Closed–cone conifer forest, chaparral, cismontane woodland; gabbroic, metavolcanic, or serpentinite/evergreen shrub/March–June/30–2,400 feet | Not expected; evergreen shrub would have been detected during previous and recent surveys. |
| <i>Galium proliferum</i> | desert bedstraw | None/None/None | 2.2 | Joshua tree woodland, Mojavean desert scrub, Pinyon and juniper woodland; rocky, carbonate (limestone)/annual herb/March– June/3900–5151 feet | No potential to occur; no suitable vegetation or soils; site is below the species' known elevation range. |
| <i>Geothaollus tuberosa</i> | Campbell's liverwort | None/None/None | 1B.1 | Coastal scrub (mesic), vernal pools; soil/ephemeral liverwort/NA/30–2000 feet | Not expected; not observed during previous surveys. |
| <i>Grindelia hallii</i> (= <i>G. hirsutula</i> var. <i>hallii</i>) | San Diego gumplant | None/None/None | 1B.2 | Chaparral, lower montane conifer forest, meadows and seeps, valley and foothill grassland/perennial herb/July– October/600–5,700 feet | Not expected; would have been detected during previous surveys. |
| <i>Harpagonella palmeri</i> | Palmer's grapplinghook | None/None/None | 4.2 | Chaparral, coastal scrub, valley and foothill grassland; clay/annual herb/March–May/60–3,100 feet | Not expected; would have been detected during previous surveys. |
| <i>Hesperocyparis</i> (= <i>Callitropsis</i> , <i>Cupressus</i>) <i>forbesii</i> | Tecate cypress | None/None/None | 1B.1 | Closed–cone conifer forest, chaparral/evergreen tree/NA/800– 5,900 feet | Not expected; site is below species' known elevation range. |
| <i>Heterotheca sessiliflora</i> ssp. <i>sessiliflora</i> | Beach goldenaster | None/None/None | 1B.1 | Coastal dunes, coastal scrub, coastal chaparral/annual herb/July– November/< 35 feet | No potential to occur; Outside species range. |

APPENDIX C (Continued)

| Scientific Name | Common Name | Status ¹ Federal/ State/MSCP | CRPR | Primary Habitat Associations/Life Form/Blooming Period/ Elevation Range | Status on Site or Potential to Occur – Village Two Study Area |
|--|-------------------------|--|------|--|---|
| <i>Holocarpha virgata</i> ssp. <i>elongata</i> | Graceful tarplant | None/None/None | 4.2 | Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland/annual herb/May–November/190–3,610 feet | Not expected; would have been detected during previous surveys. |
| <i>Horkelia truncata</i> | Ramona horkelia | None/None/None | 1B.3 | Chaparral, cismontane woodland, clay, gabbroic/perennial herb/May–June/1,300–4,300 feet | Not expected; site is below species' known elevation range. |
| <i>Hosackia crassifolius</i> var. <i>otayensis</i> | Otay Mountain lotus | None/None | 1B.1 | Chaparral (metavolcanic, often in disturbed areas)/perennial herb/May–August/3,000–3,300 feet | No potential to occur; site is below species' known elevation range. |
| <i>Isocoma menziesii</i> var. <i>decumbens</i> | Decumbent goldenbush | None/None/None | 1B.2 | Chaparral, coastal scrub (sandy, often disturbed areas)/shrub/April–November/30–440 feet | Not expected; would have been detected during previous and recent surveys. |
| <i>Iva hayesiana</i> | San Diego marsh-elder | None/None/None | 2.2 | Marshes and swamps, playas/perennial herb/April–November/30–1,650 feet | Moderate potential to occur. Suitable habitat is present and it was observed within the vicinity. Not detected during previous and recent surveys. Not observed within the study area. |
| <i>Juncus acutus</i> ssp. <i>leopoldii</i> | Southwestern spiny rush | None/None/None | 4.2 | Coastal dunes (mesic), meadows and seeps (alkaline seeps), marshes and swamps (coastal salt)/perennial rhizomatous herb/March–June/10–2,960 feet | Moderate potential to occur. Suitable habitat is present and it was observed within the vicinity. Not detected during previous and recent surveys.. Not observed within the study area. |

APPENDIX C (Continued)

| Scientific Name | Common Name | Status ¹ Federal/ State/MSCP | CRPR | Primary Habitat Associations/Life Form/Blooming Period/ Elevation Range | Status on Site or Potential to Occur – Village Two Study Area |
|---|-----------------------------|--|------|--|--|
| <i>Lasthenia glabrata</i> ssp. <i>coulteri</i> | Coulter's goldfields | None/None/None | 1B.1 | Saltwater marsh and swamps, playas, vernal pools/annual herb/February– June/<4,000 feet | Not expected; no suitable habitat and would have been detected during previous surveys. |
| <i>Lepechinia ganderi</i> | Gander's pitcher sage | None/None/None | 1B.3 | Closed-cone conifer forest, chaparral, coastal scrub, valley and foothill grassland; gabbroic or metavolcanic/shrub/June–July/1,000– 3,300 feet | Not expected; site is below species' known elevation range. |
| <i>Lepidium virginicum</i> var. <i>robinsonii</i> | Robinson's pepper- grass | None/None/None | 1B.2 | Chaparral, coastal scrub/annual herb/January–July/< 2,900 feet | Not expected; no suitable habitat and would have been detected during previous surveys. |
| <i>Leptosyne</i> (=Coreopsis) <i>maritima</i> | Sea dahlia | None/None/None | 2.2 | Coastal bluff scrub, coastal scrub/perennial herb/March–May/15– 500 feet | Not expected; would have been detected during previous surveys. Outside of coastal species' range. |
| <i>Lotus nuttallianus</i> | Nuttall's lotus | None/None/None | 1B.1 | Coastal dunes, coastal scrub; sandy/annual herb/March–June/< 35 feet | No potential to occur; site above species' known elevation range. No suitable sandy soils. |
| <i>Lycium californicum</i> | California box-thorn | None/None/None | 4.2 | Coastal bluff scrub, coastal scrub/perennial shrub/ December–August/15–490 feet | Low potential; would have been detected during previous and recent surveys. |
| <i>Monardella hypoleuca</i> ssp. <i>lanata</i> | Felt-leaved monardella | None/None/None | 1B.2 | Chaparral, cismontane woodland/rhizomatous herb/June– August/1,000–3,600 feet | Not expected; site is below species' known elevation range. |
| <i>Monardella stoneana</i> | Jennifer's monardella | None/None/None | 1B.2 | Closed-cone coniferous forest, chaparral, coastal scrub, riparian scrub; usually rocky intermittent streambeds/ perennial herb/June–September/30– 2,600 feet | Not expected; no suitable rocky streambed habitat; would have been detected during previous surveys. |

APPENDIX C (Continued)

| Scientific Name | Common Name | Status ¹ Federal/ State/MSCP | CRPR | Primary Habitat Associations/Life Form/Blooming Period/ Elevation Range | Status on Site or Potential to Occur – Village Two Study Area |
|---|----------------------|--|------|--|---|
| <i>Monardella viminea</i> | Willowy monardella | FE/SE/None | 1B.1 | Chaparral, coastal scrub, riparian forest, woodland, and scrub; alluvial ephemeral washes/perennial herb/June–August/160–750 feet | Not expected; no suitable ephemeral wash habitat; would have been detected during previous surveys. |
| <i>Myosurus minimus</i> ssp. <i>apus</i> | Little mousetail | None/None/None | 3.1 | Vernal pools, valley and foothill grassland; alkaline/annual herb/March–June/60–2,100 feet | Not expected; no vernal pools on site. |
| <i>Nama stenocarpum</i> | Mud nama | None/None/None | 2.2 | Marshes and swamps, lake margins, riverbanks/annual–perennial herb/January–July/15–1,650 feet | Not expected; no suitable habitat and would have been detected during previous surveys if present. |
| <i>Navarretia fossalis</i> | Spreading navarretia | FT/None/MSCP | 1B.1 | Chenopod scrub, shallow freshwater marshes and swamps, playas, vernal pools/annual herb/April–June/100–4,300 feet | Not expected; no suitable habitat and would have been detected during previous surveys. |
| <i>Navarretia prostrata</i> | Prostrate navarretia | None/None/None | 1B.1 | Coastal scrub, meadows and seeps, valley and foothill grassland (alkaline), vernal pools; mesic/annual herb/April–July/50–2,300 feet | Not expected; no vernal pools on site. |
| <i>Nemacaulis denudata</i> var. <i>denudata</i> | Coast woolly-heads | None/None/None | 1B.2 | Coastal dunes/annual herb/April–September/< 330 feet | Not expected; no suitable coastal dunes on site. |
| <i>Nemacaulis denudata</i> var. <i>gracilis</i> | Slender woolly-heads | None/None/None | 2.2 | Coastal dunes, desert dunes, Sonoran desert scrub/annual herb/(March)April–May/160–1,300 feet | Not expected; no suitable habitat. |
| <i>Nolina interrata</i> | Dehesa nolina | None/SE/None | 1B.1 | Chaparral; gabbroic, metavolcanic or serpentinite/perennial herb/June–July/600–2,800 feet | Not expected; would have been detected during previous surveys. |
| <i>Cylindropuntia californica</i> var. <i>californica</i> | Snake cholla | None/None/MSCP Covered NE | 1B.1 | Chaparral, coastal scrub/stem succulent/April–May/100–500 feet | Not expected; would have been detected during previous and recent surveys. |

APPENDIX C (Continued)

| Scientific Name | Common Name | Status ¹ Federal/ State/MSCP | CRPR | Primary Habitat Associations/Life Form/Blooming Period/ Elevation Range | Status on Site or Potential to Occur – Village Two Study Area |
|--|----------------------------------|--|------|--|---|
| <i>Orcuttia californica</i> | California Orcutt grass | FE/SE/MSCP | 1B.1 | Vernal pools/annual herb/April– August/50–2,200 feet | Not expected; no vernal pools on site. |
| <i>Ornithostaphylos oppositifolia</i> | Baja California birdbush | None/SE | 2.1 | Chaparral/evergreen shrub/January– April/180–2,600 feet | Not expected; evergreen shrub would have been detected during previous and recent surveys. |
| <i>Orobanche parishii</i> ssp. <i>brachyloba</i> | Short-lobed broom- rape | None/None/None | 4.2 | Coastal bluff scrub, coastal dunes, coastal scrub; sandy/perennial herb parasitic/April –October/<1,000 feet | Not expected; no suitable sandy soils. |
| <i>Packera</i> (=Senecio) <i>ganderi</i> | Gander's ragwort | None/SR/None | 1B.2 | Chaparral (burns and gabbroic outcrops)/perennial herb/April– June/1,300–4,000 feet | Not expected; site is below species' known elevation range. |
| <i>Phacelia stellaris</i> | Brand's phacelia | FC/None | 1B.1 | Coastal dunes, coastal scrub/annual herb/March–June/<1,300 feet | Not expected; Outside of species' range. |
| <i>Pogogyne nudiuscula</i> | Otay Mesa mint | FE/SE/MSCP | 1B.1 | Vernal pools/annual herb/May–July/300– 620 feet | Not expected; no vernal pools on site. |
| <i>Quercus cedrosensis</i> | Cedros Island oak | None/None/None | 2.2 | Closed–cone coniferous forest, chaparral, coastal scrub/evergreen tree/April– May/830–1,600 feet | Not expected; site is below species' known elevation range. |
| <i>Quercus dumosa</i> | Nuttall's scrub oak | None/None/None | 1B.1 | Chaparral, coastal scrub, closed–cone coniferous forest; sandy, clay loam/evergreen shrub/ February–April/50–1,300 feet | Not expected; would have been detected during previous and recent surveys. |
| <i>Ribes canthariforme</i> | Moreno currant | None/None/None | 1B.3 | Chaparral/deciduous shrub/February– April/1,100–3,950 feet | Not expected; would have been detected during previous and recent surveys. |
| <i>Ribes viburnifolium</i> | Santa Catalina Island currant | None/None/None | 1B.2 | Chaparral, cismontane woodland/evergreen shrub/February– April/100–1,000 feet | No potential to occur; outside of species' range. |

APPENDIX C (Continued)

| Scientific Name | Common Name | Status ¹ Federal/ State/MSCP | CRPR | Primary Habitat Associations/Life Form/Blooming Period/ Elevation Range | Status on Site or Potential to Occur – Village Two Study Area |
|-----------------------------|--------------------------|--|------|--|--|
| <i>Rosa minutifolia</i> | Small-leaved rose | None/SE/None | 2.1 | Chaparral, coastal scrub/deciduous shrub/January–June/490–525 feet | Not expected; would have been detected during previous and recent surveys. |
| <i>Salvia munzii</i> | Munz's sage | None/None/None | 2.2 | Chaparral, coastal scrub/evergreen shrub/February–April/400–3,500 feet | Not expected; would have been detected during previous and recent surveys. |
| <i>Satureja chandleri</i> | San Miguel savory | None/None/MSCP | 1B.2 | Chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland; rocky, gabbroic or metavolcanic/shrub/March–July/400–3,550 feet | Not expected; would have been detected during previous and recent surveys. |
| <i>Senecio aphanactis</i> | Chaparral ragwort | None/None/None | 2.2 | Chaparral, cismontane woodland, coastal scrub; sometimes alkaline/annual herb/January–April/50–2,630 feet | Low potential to occur;. The nearest occurrence is approximately 5 miles away from the project site. |
| <i>Solanum tenuilobatum</i> | Narrow-leaved nightshade | None/None/MSCP | None | Chaparral; dry open places/herb or shrub/March–April/3,300–9,000 feet | No potential to occur; site is below species' known elevation range. Not recorded in the vicinity. |
| <i>Sphaerocarpus drewei</i> | Bottle liverwort | None/None/None | 1B.1 | Chaparral, coastal scrub; openings, soil/ephemeral liverwort/NA/300–1,970 feet | Not expected; not observed during the previous surveys. |

APPENDIX C (Continued)

| Scientific Name | Common Name | Status ¹ Federal/ State/MSCP | CRPR | Primary Habitat Associations/Life Form/Blooming Period/ Elevation Range | Status on Site or Potential to Occur – Village Two Study Area |
|---------------------------------|----------------------------------|--|------|--|---|
| <i>Stemodia durantifolia</i> | Purple stemodia | None/None/None | 2.1 | Sonoran desert scrub; often mesic, sandy/perennial herb /January– December/600–1,000 feet | Not expected; no suitable habitat and species would have been detected during the previous surveys if present. |
| <i>Streptanthus bernardinus</i> | Laguna Mountains jewel-flower | None/None/None | 4.3 | Chaparral, lower montane coniferous forest/perennial herb/June–August/2,200– 8,200 feet | No potential to occur; site is below species' known elevation range. |
| <i>Stylocline citroleum</i> | Oil neststraw | None/None/None | 1B.1 | Chenopod scrub, coastal scrub, valley and foothill grassland; clay/annual herb/March–April /165–1,300 feet | Low potential to occur. There is only one record for this species, which is over 7 miles away and from 1883. |
| <i>Tetracoccus dioicus</i> | Parry's tetracoccus | None/None/None | 1B.2 | Chaparral, coastal scrub/deciduous shrub/April–May/550–3,300 feet | Not expected; would have been detected during previous and recent surveys |

¹

Status

CRPR = California Rare Plant Rank

FC = Federal candidate

FE = Federally listed as Endangered

FT = Federally listed as Threatened

MSCP Covered = City of Chula Vista MSCP Subarea Plan species adequately covered (*Chula Vista Subarea Plan Covered Species Table 4-1*)

MSCP = City of Chula Vista MSCP Subarea Plan species with known occurrences or suitable habitat within the Chula Vista Subarea (*Chula Vista Subarea Plan Covered Species Table 4-2*)

NE = Narrow Endemic (MSCP)

SE = State-listed as Endangered

ST = State-listed as Threatened

SR = State Rare

APPENDIX D

*Special-Status Wildlife Species that Occur or
Potentially Occur within the Study Area of Village
Two Project Site*

APPENDIX D **Special-Status Wildlife Species that Occur or Potentially Occur** **within the Study Area of Village Two Project Site**

| Scientific Name Common Name | Status¹ Federal/State/MSCP | Habitat Preferences/Requirements | Status on Site or Potential to Occur – Study Area of Village Two |
|---|--|--|---|
| <i>Amphibians</i> | | | |
| <i>Anaxyrus californicus</i> Arroyo southwestern toad | FE/CSC/MSCP | Stream channels for breeding (typically third order); adjacent stream terraces and uplands for foraging and wintering | Not expected to occur. No suitable habitat present. |
| <i>Spea [=Scaphiopus] hammondi</i> Western spadefoot | None/CSC/None | Most common in grasslands, coastal sage scrub near rain pools or vernal pools; riparian habitat | Moderate potential to occur. Not observed during surveys. |
| <i>Reptiles</i> | | | |
| <i>Anniella pulchra pulchra</i> Silvery legless lizard | None/CSC/None | Loose soils (sand, loam, humus) in coastal dune, coastal sage scrub, woodlands, and riparian habitats | Low potential due to lack of suitable soils. Not detected during surveys. |
| <i>Aspidoscelis hyperythra beldingi</i> Orange-throated whiptail | None/CSC/MSCP | Coastal sage scrub, chaparral, grassland, juniper and oak woodland; sandy soils, washes | Moderate potential to occur. Area is disturbed but there are some grassland areas present. |
| <i>Chelonia mydas</i> Green turtle | FT/None/None | Tropical and subtropical waters | Not expected. No suitable marine habitat. |
| <i>Crotalus ruber ruber</i> Northern red-diamond rattlesnake | None/CSC/None | Variety of shrub habitats where there is heavy brush, large rocks, or boulders | Low potential due to lack of suitable rocky habitat. |
| <i>Emys [=Clemmys] marmorata pallida</i> Western pond turtle | None/CSC/MSCP | Slow-moving permanent or intermittent streams, ponds, small lakes, reservoirs with emergent basking sites; adjacent uplands used during winter | Not expected to occur. No suitable habitat on site. |
| <i>Eumeces skiltonianus interparietalis</i> Coronado skink | None/CSC/None | Grassland, riparian and oak woodland; found in litter, rotting logs, under flat stones | Low potential to occur. Lacking suitable rocky areas on site. Not detected during surveys. |
| <i>Phrynosoma blainvillei</i> Coast (San Diego) horned lizard | None/CSC/MSCP | Coastal sage scrub, non-native grassland, chaparral, oak and riparian woodland, coniferous forest, sandy areas, washes, flood plains | Low potential to occur. Area lacks suitable sandy soils and is highly disturbed. Not detected during surveys. |

APPENDIX D (Continued)

| Scientific Name Common Name | Status ¹ Federal/State/MSCP | Habitat Preferences/Requirements | Status on Site or Potential to Occur – Study Area of Village Two |
|---|---|--|---|
| <i>Salvadora hexalepis virgulata</i> Coast patch-nosed snake | None/CSC/None | Chaparral, washes, sandy flats, rocky areas | Low potential due to lack of suitable soils. Not detected during surveys. |
| <i>Thamnophis hammondi</i> Two-striped garter snake | None/CSC/None | Marshes, meadows, sloughs, ponds, slow-moving water courses | Moderate potential to occur due to presence of wetland area. No suitable habitat present on site. Although Wolf Canyon is within the Preserve, perennial ponds are not present. |
| <i>Birds</i> | | | |
| <i>Accipiter cooperii</i> Cooper's hawk (nesting) | None/WL/MSCP | Riparian and oak woodlands, montane canyons | Moderate potential to nest the riparian trees. High potential to forage. |
| <i>Agelaius tricolor</i> Tricolored blackbird | BCC, USBC/CSC/MSCP | Nests near fresh water, emergent wetland with cattails or tules; forages in grasslands, woodland, agriculture | Low potential to occur. No suitable extensive freshwater marsh nesting habitat present on site. |
| <i>Aimophila ruficeps canescens</i> Southern California rufous-crowned sparrow | None/WL/MSCP Covered | Grass-covered hillsides, coastal sage scrub, chaparral with boulders and outcrops | Low potential to occur due to lack of habitat. |
| <i>Amphispiza belli belli</i> Bell's sage sparrow | BCC/CSC/None | Coastal sage scrub and dry chaparral along coastal lowlands and inland valleys | Low potential to occur due to lack of habitat and urbanized area. |
| <i>Ammodramus savannarum</i> Grasshopper sparrow | None/CSC/None | Restricted to native grassland | Low potential to occur due to small area of suitable habitat. |
| <i>Aquila chrysaetos</i> Golden eagle (nesting and wintering) | BCC/CSC, P/MSCP | Open country, especially hilly and mountainous regions; grassland, coastal sage scrub, chaparral, oak savannas, open coniferous forest | Low potential due to urbanized area. Not detected during surveys. |
| <i>Athene cunicularia</i> Burrowing owl | BCC/CSC/MSCP Covered | Grassland, lowland scrub, agriculture, coastal dunes, and other artificial open areas | Moderate potential to occur. Suitable habitat present on site. |
| <i>Branta canadensis</i> Canada goose | None/None/MSCP | Lacustrine, fresh emergent wetlands, and moist grasslands, croplands, pastures, and meadows | Low potential to occur. Not recorded in the vicinity. |

APPENDIX D (Continued)

| Scientific Name Common Name | Status ¹ Federal/State/MSCP | Habitat Preferences/Requirements | Status on Site or Potential to Occur – Study Area of Village Two |
|--|---|--|---|
| <i>Buteo regalis</i> Ferruginous hawk | BCC/WL/MSCP | Open, dry country, grasslands, open fields, agriculture | Low potential to occur. Not recorded in the vicinity. Could forage on site during winter or migration. |
| <i>Buteo swainsoni</i> Swainson's hawk | USBC, BCC/ST/MSCP | Open grassland, shrublands, croplands | Low potential to occur. Not recorded in the vicinity. Could forage on site during winter or migration. |
| <i>Campylorhynchus brunneicapillus sandiegensis</i> Coastal (San Diego) cactus wren | BCC/CSC/MSCP Covered | Southern cactus scrub, maritime succulent scrub, cactus thickets in coastal sage scrub | Low potential to occur due to lack of suitable habitat. |
| <i>Charadrius alexandrinus nivosus</i> Western snowy plover (coastal population) | FT, BCC, USBC/CSC/MSCP Covered | Nests primarily on coastal beaches, in flat open areas, with sandy or saline substrates; less commonly in salt pans, dredged spoil disposal sites, dry salt ponds and levees | Not expected to occur. No suitable habitat present. |
| <i>Circus cyaneus hudsonius</i> Northern harrier | None/CSC/MSCP | Open wetlands (nesting), pasture, old fields, dry uplands, grasslands, rangelands, coastal sage scrub | Low potential to occur due to urbanized area and relatively small area of suitable habitat and urbanized character of the area. |
| <i>Coccyzus americanus occidentalis</i> Western yellow-billed cuckoo | FC, BCC/SE/None | Dense, wide riparian woodlands and forest with well-developed understories | Not expected to occur. No suitable habitat present. |
| <i>Setophaga petechia brewsteri</i> Yellow warbler | BCC/CSC/None | Nests in lowland and foothill riparian woodlands dominated by cottonwoods, alders and willows; winters in a variety of habitats | Moderate potential to occur within the riparian habitat. |
| <i>Egretta rufescens</i> Reddish egret | None/None/MSCP | Saltmarsh, mudflats, coastal lagoons | Low potential to occur. Not recorded in the vicinity. |
| <i>Elanus leucurus (caeruleus)</i> White-tailed kite | None/P/None | Open grasslands, savanna-like habitats, agriculture, wetlands, oak woodlands, riparian | Low potential to occur within the riparian habitat onsite due to the small size of the area and urbanizzati. |
| <i>Empidonax traillii extimus</i> Southwestern willow flycatcher | FE, USBC/None/MSCP | Riparian woodlands along streams and rivers with mature, dense stands of willows or alders; may nest in thickets dominated by tamarisk | Low potential to occur due to lack of suitable extensive riparian willow habitat. |

APPENDIX D (Continued)

| Scientific Name Common Name | Status ¹ Federal/State/MSCP | Habitat Preferences/Requirements | Status on Site or Potential to Occur – Study Area of Village Two |
|---|---|--|---|
| <i>Eremophila alpestris actia</i> California horned lark | None/WL/None | Open habitats, grassland, rangeland, shortgrass prairie, montane meadows, coastal plains, fallow grain fields | High potential to occur. |
| <i>Falco mexicanus</i> Prairie falcon | BCC/CSC/MSCP | Grassland, savannas, rangeland, agriculture, desert scrub, alpine meadows; nest on cliffs or bluffs | Low potential to occur for foraging. No nesting habitat is present. Area is high urbanized |
| <i>Falco peregrinus anatum</i> American peregrine falcon | BCC, (FD)/SE, P/None | Nests on cliffs, buildings, bridges; forages in wetlands, riparian, meadows, croplands, especially where waterfowl are present | Low potential to occur for foraging. No nesting habitat is present. Area is highly urbanized. |
| <i>Haliaeetus leucocephalus</i> (nesting and nonbreeding/wintering) Bald eagle | (FD)/SE, P/MSCP | Seacoasts, rivers, swamps, large lakes; winters at large bodies of water in lowlands and mountains | Low potential to occur. Not recorded in the vicinity. |
| <i>Icteria virens</i> Yellow-breasted chat | None/CSC/None | Dense, relatively wide riparian woodlands and thickets of willows, vine tangles and dense brush. | Moderate potential to occur within riparian habitat. |
| <i>Laterallus jamaicensis coturniculus</i> California black rail | ST, BCC, USBC/P/None | Saline, brackish, and fresh emergent wetlands | Not expected to occur. No suitable habitat present. |
| <i>Lanius ludovicianus</i> Loggerhead shrike | BCC/CSC/None | Open ground including grassland, coastal sage scrub, broken chaparral, agriculture, riparian, open woodland | Low potential to occur due to lack of suitable scrub habitat. |
| <i>Numenius americanus</i> (nesting) Long-billed curlew | BCC/WL/MSCP Covered | Nests in upland shortgrass prairies and wet meadows in northeast California; winters in coastal estuaries, open grasslands and croplands | Low potential to occur. Not recorded in the vicinity. |
| <i>Pandion haliaetus</i> (nesting) Osprey | None/WL/None | Large waters (lakes, reservoirs, rivers) supporting fish; usually near forest habitats, but widely observed along the coast | Not expected to occur. No suitable habitat present. |
| <i>Passerculus sandwichensis beldingi</i> Belding's savannah sparrow | None/SE/Group 1, MSCP Covered | Saltmarsh, pickleweed | Not expected to occur. No suitable habitat present. |
| <i>Passerculus sandwichensis rostratus</i> (nonbreeding/wintering) Large-billed savannah sparrow | None/CSC/MSCP Covered | Saltmarsh, pickleweed | Not expected to occur. No suitable habitat present. |

APPENDIX D (Continued)

| Scientific Name Common Name | Status ¹ Federal/State/MSCP | Habitat Preferences/Requirements | Status on Site or Potential to Occur – Study Area of Village Two |
|---|---|--|---|
| <i>Pelecanus occidentalis californicus</i> (nesting colony and communal roosts) California Brown Pelican | FE/(SD)/MSCP | Open sea, large water bodies, coastal bays and harbors | Not expected. No suitable habitat present. |
| <i>Phalacrocorax auritus</i> Double-crested cormorant | None/CSC/None | Lakes, rivers, reservoirs, estuaries, ocean; nests in tall trees, rock ledges on cliffs, rugged slopes | Not expected to occur. No suitable habitat present. |
| <i>Plegadis chihi</i> (rookery site) White-faced ibis | None/WL/MSCP | Nests in marsh; winter foraging in shallow lacustrine waters, muddy ground of wet meadows, marshes, ponds, lakes, rivers, flooded fields and estuaries | Low potential to occur. Not recorded in the vicinity. |
| <i>Poliioptila californica californica</i> Coastal California gnatcatcher | FT, USBC/CSC/MSCP Covered | Coastal sage scrub, coastal sage scrub-chaparral mix, coastal sage scrub-grassland ecotone, riparian in late summer | Low potential to occur due to lack of suitable habitat. |
| <i>Rallus longirostris levipes</i> Light-footed clapper rail | FE, USBC/SE, P/MSCP Covered | Coastal saltmarsh | Not expected to occur. No suitable habitat present. |
| <i>Sialia mexicana</i> Western bluebird | None/None /MSCP | Open forests of deciduous, coniferous or mixed trees, savanna, edges of riparian woodland | High potential to occur due to presence of trees for foraging. |
| <i>Sterna antillarum browni</i> California least tern (nesting colony) | FE, USBC/SE, P/MSCP Covered | Nests along the coast from San Francisco Bay south to northern Baja California | Not expected to occur. No suitable habitat present. |
| <i>Thalasseus elegans</i> Elegant tern | USBC/WL/MSCP | Coastal waters, estuaries, large bays and harbors, mudflats | Not expected to occur. No suitable habitat present. Not recorded in the vicinity. |
| <i>Vireo bellii pusillus</i> Least Bell's vireo (nesting) | FE, BCC, USBC/SE/MSCP Covered | Nests in southern willow scrub with dense cover within 1–2 meters of the ground; habitat includes willows, cottonwoods, baccharis, wild blackberry or mesquite on desert areas | Moderate potential to occur within riparian habitat. |

APPENDIX D (Continued)

| Scientific Name Common Name | Status ¹ Federal/State/MSCP | Habitat Preferences/Requirements | Status on Site or Potential to Occur – Study Area of Village Two |
|--|---|---|---|
| <i>Mammals</i> | | | |
| <i>Antrozous pallidus</i> Pallid bat | None/CSC/None | Rocky outcrops, cliffs, and crevices with access to open habitats for foraging | Not expected to occur for roosting. No suitable roosting habitat present. Could forage over the site. |
| <i>Chaetodipus californicus femoralis</i> Dulzura (California) pocket mouse | None/CSC/None | Coastal sage scrub, chaparral, riparian-scrub ecotone; more mesic areas | Moderate potential to occur. Suitable habitat present on site. |
| <i>Chaetodipus fallax fallax</i> Northwestern San Diego pocket mouse | None/CSC/None | Coastal sage scrub, grassland, sage scrub-grassland ecotones, sparse chaparral; rocky substrates, loams and sandy loams | Low potential to occur. Suitable xeric shrub habitat is not present on site. |
| <i>Choeronycteris mexicana</i> Mexican long-tongued bat | None/CSC/None | Desert and montane riparian, desert succulent scrub, desert scrub, and pinyon-juniper woodland. Roosts in caves, mines, and buildings. | Not expected to occur for roosting. No suitable roosting habitat present. Could forage over the site. |
| <i>Corynorhinus townsendii</i> Townsend's big-eared bat | None/CSC/None | Mesic habitats, gleanes from brush or trees or feeds along habitat edges | Not expected to occur for roosting. No suitable roosting habitat present. Could forage over the site. |
| <i>Eumops perotis californicus</i> Greater western mastiff bat | None/CSC/None | Roosts in small colonies in cracks and small holes, seeming to prefer man-made structures | Not expected to occur for roosting. No suitable roosting habitat present. Could forage over the site. |
| <i>Felis concolor</i> Mountain lion | None/None/MSCP | Coastal sage scrub, chaparral, riparian, woodlands, forest; rests in rocky areas, and on cliffs and ledges that provide cover | Low potential due to urbanization. |
| <i>Lasiurus blossevillii</i> Western red bat | None/CSC/WBWG | Roosts in forests and woodlands from sea level up through mixed conifer forests. Feeding habitat variable and includes grasslands, shrublands, open woodlands and forests, and croplands. Not found in desert areas | Not expected to occur for roosting. No suitable roosting habitat present. Could forage over the site. |
| <i>Lasiurus xanthinus</i> Western yellow bat | None/CSC/WBWG | Desert and montane riparian, desert succulent scrub, desert scrub, and pinyon-juniper woodland | Not expected to occur for roosting. No suitable roosting habitat present. Could forage over the site. |

APPENDIX D (Continued)

| Scientific Name Common Name | Status ¹ Federal/State/MSCP | Habitat Preferences/Requirements | Status on Site or Potential to Occur – Study Area of Village Two |
|--|---|--|---|
| <i>Lepus californicus bennettii</i> San Diego black-tailed jackrabbit | None/CSC/None | Arid habitats with open ground; grasslands, coastal sage scrub, agriculture, disturbed areas, rangelands | Moderate potential to occur due to suitable habitat. |
| <i>Macrotus californicus</i> California leaf-nosed bat | None/CSC/WBVG | Desert riparian, desert wash, desert scrub, desert succulent shrub, alkali desert scrub, and palm oasis | Not expected to occur. Does not occur in the region. |
| <i>Neotoma lepida intermedia</i> San Diego desert woodrat | None/CSC/None | Coastal sage scrub, chaparral, pinyon- juniper woodland with rock outcrops, cactus thickets, dense undergrowth | Low potential to occur due to lack of suitable habitat. |
| <i>Nyctinomops femorosaccus</i> Pocketed free-tailed bat | None/CSC/None | Rocky desert areas with high cliffs or rock outcrops | Not expected to occur for roosting. No suitable roosting habitat present. Could forage over the site. |
| <i>Nyctinomops macrotis</i> Big free-tailed bat | None/CSC/None | Rugged, rocky canyons | Not expected to occur for roosting. No suitable roosting habitat present. Could forage over the site. |
| <i>Odocoileus hemionus fuliginata</i> Southern mule deer | None/None/MSCP | Coastal sage scrub, chaparral, riparian, woodlands, forest; often browses in open areas adjacent to cover | Low potential to occur due to urbanization. |
| <i>Perognathus longimembris pacificus</i> Pacific pocket mouse | FE/CSC/None | Grassland, coastal sage scrub with sandy soils; along immediate coast | Not expected to occur. Site is not located along the immediate coast. |
| <i>Taxidea taxus</i> American badger | None/CSC/MSCP | Dry, open treeless areas, grasslands, coastal sage scrub | Low potential to occur. Not recorded in the vicinity. |
| <i>Invertebrates</i> | | | |
| <i>Branchinecta sandiegonensis</i> San Diego fairy shrimp | FE/None/MSCP | Small, shallow vernal pools, occasionally ditches and road ruts | Not expected to occur. |
| <i>Euphydryas editha quino</i> Quino checkerspot butterfly | FE/None/MSCP Covered | Sparsely vegetated hilltops, ridgelines, occasionally rocky outcrops; host plant <i>Plantago erecta</i> and nectar plants must be present | Not expected to occur. No suitable habitat or host plant for larvae. |
| <i>Panoquina errans</i> Wandering (= saltmarsh) skipper | None/None/MSCP Covered | Salt marsh from Los Angeles to Baja, Mexico | Not expected to occur. No suitable habitat present. |

APPENDIX D (Continued)

| Scientific Name Common Name | Status ¹ Federal/State/MSCP | Habitat Preferences/Requirements | Status on Site or Potential to Occur – Study Area of Village Two |
|---|---|--|---|
| <i>Streptocephalus woottoni</i> Riverside fairy shrimp | FE/None/MSCP | Deep, long-lived vernal pools, vernal pool-like seasonal ponds, stock ponds; warm water pools that have low to moderate dissolved solids | Not expected to occur. |

¹ **Status Designations:**

Federal

- BCC = U.S. Fish and Wildlife Service: Birds of Conservation Concern
- FC = Candidate for federal listing as Threatened or Endangered
- (FD) = Federally delisted; monitored for 5 years
- FE = Federally listed Endangered
- FT = Federally listed as Threatened
- MNBMC = U.S. Fish and Wildlife Service Migratory Nongame Birds of Management Concern
- USBC = United States Bird Conservation Watch List

State Designations:

- CSC = California Special Concern Species
- P = California Department of Fish and Game Protected and Fully Protected Species
- SE = State-listed as Endangered
- ST = State-listed as Threatened

MSCP Designations:

MSCP Covered = City of Chula Vista MSCP Subarea Plan species adequately covered (*Chula Vista Subarea Plan Covered Species Table 4-1*)

MSCP = City of Chula Vista MSCP Subarea Plan species with known occurrences or suitable habitat within the Chula Vista Subarea (*Chula Vista Subarea Plan Covered Species Table 4-2*)

Other:

WBWG: Western Bat Working Group